3

PROPOSED BY 81-721

ORDINANCE NO.

AN ORDINANCE repealing Ordinance No. 3649 pertaining to energy conservation policies, adopting the energy goals and policies as contained in the final "King County Energy Management Plan" and creating a new Title on Energy in the King County Code.

PREAMBLE:

2

3

7

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

The Energy Planning Project for King County concluded that the availability of energy to meet the needs of an expanding population and economy, and the rising costs of conventional sources of energy are critical issues facing King County now and into the future.

BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

CHAPTER 1. PURPOSE AND NAME

SECTION 101. Purpose

The purpose of this title is to adopt and implement a comprehensive plan for the management of energy resources and their conservation in King County, to establish energy related criteria for County decisions, including but not limited to, land use planning and regulations, transportation, codes, County operations, facilities management and budgeting, and to establish a process for identifying and ensuring the consideration of energy impacts during the development of the annual capital improvement program.

SECTION 102. Name

The title shall be known as "The Energy Management Program" CHAPTER 2. DEFINITIONS

SECTION 201. Definitions

- A. Appendix C, Glossary, of the "Energy Management Plan for King County", pp. C-1 to C-5 is adopted as part of the definitions of this title.
- B. Conservation: The care and protection of a resource from loss or waste.
- C. Energy: The ability to do work expressed in watts, British Thermal Units (BTU) per hour or calories per second.
- D. Energy Action Program: Implementation activities which will result in the achievement of one or more energy objectives.

- E. Goals: An articulation of values, formulated in light of identified issues and problems, toward the attainment of which policies and program decisions are directed.
 - F. Objectives: Explicit statements of intended output.
- G. "Program": The King County Energy Management Plan as adopted or revised.

CHAPTER 3. PLAN ADOPTION AND APPLICABILITY

SECTION 301. Plan Adoption

The recommended goals and policies of the Energy Management Plan, attached to this Ordinance as Appendix A, is hereby redesignated as the "King County Energy Management Program", and is adopted as official policy of King County.

SECTION 302. Applicability. Land Use Management and Transportation

The King County Department of Planning, and Community
Development; the Planning Division, the Building and Land
Development Division; the King County Zoning and Subdivision
Examiner; the Department of Public Works and other County
departments and agencies charged with land use and transportation responsibilities shall, to the extent feasible, consider
the goals, policies and programs of the King County Energy
Management Program when making land use and transportation
decisions and recommendations.

SECTION 303. Applicability. Annual Operating and Capital Improvement Budget

The goals and policies of the King County Energy Management Program shall be considered in the annual operating budget and in the planning and implementation of all King County capital improvement projects.

SECTION 304. Applicability. Codes

The goals and policies of the King County Energy Management Program shall be considered in the revision or addition of any King County Code. Up to date records of existing and future codes relating to energy will be maintained in the

1	files of the Clerk of the Council, and cross-referenced within
2	this title.
3	CHAPTER 4. PLAN AMENDMENT
4	SECTION 401. Plan Amendment
5	Amendments to the Energy Management Program shall consist of
6	additions or revisions to the energy goals, policies and the
7	energy action programs.
8	CHAPTER 5. REPEALER AND SEVERABILITY
9	SECTION 501. Repealer
10	Ordinance 3649 is hereby repealed.
11	SECTION 502. Severability
12	If any provision of this title or its application to any
13	person or circumstance is held to be invalid, the remainder
14	of the Ordinance or the application of the provision to other
15	persons or circumstances is not affected.
16	CHAPTER 6. EFFECTIVE DATE
17	SECTION 601. Effective Date
18	The effective date of this Ordinance shall be April 1, 1982.
19	
20	INTRODUCED AND READ for the first time this 19th day
21	of October, 1981.
22	PASSED this 1th day of Lecember, 1981.
23	KING COUNTY COUNCIL KING COUNTY, WASHINGTON
24	ATTEST:
25	fant delle.
26	DEPUTW Clerk of the Council
27	APPROVED this 17th day of December, 1981.
28	
29	
30	
31	King County Executive
32	



Randy Reveile King County Executive King County Courthouse Seattle, Washington 98104 (206) 344-4040

December 17, 1981

යා

The Honorable Paul Barden Chairman, King County Council 402 King County Courthouse Seattle, Washington 98104

Ordinance 5770

Dear Councilman Barden:

Enclosed is Ordinance 5770 which I have signed. I am pleased by the County Council's interest and support of responsible energy management as indicated by the unanimous passage of this ordinance and several related motions.

I am concerned, however, that the few hectic weeks since my taking office have not afforded me sufficient time to review the contents of the Energy Management <u>Plan</u>, especially its Goals and Policies adopted by this ordinance. One specific policy (3.1.3.) was not deleted as I had requested and as was recommended by the Council's Facilities and Economic Development Committee.

The effective date contained in Ordinance 5770 is April 1, 1982. I believe this will allow me ample time to further consider policy 3.1.3., and to review the remaining Goals and Policies and make timely recommendations for changes. if deemed appropriate.

On behalf of those who served on the Steering Committee and Community Task Force and the citizens of King County, I wish to express special appreciation to Councilmembers Tracy Owen and Scott Blair for their contribution as Council representatives to the Energy Planning Project Steering Committee.

I can assure you of my continued interest in energy management in King County. I look forward to working cooperatively with you on this important subject.

RANDY REVELLE

Sincerely,

King County Executive

RR:cw

cc:

King County Councilmembers Shani Taha, County Administrative Officer

ATTN: Ron Quist, Energy Office

ORD. NO. 5770

PROPOSED ORD 31-721

ADDENDUM TO BE ADDED TO THE ENERGY MANAGEMENT PROGRAM GOALS AND POLICIES

GOALS pp. 44-52

Revise the first "will" in each Goal to the word "should". (See attached revised wording of Goals Statements)

POLICIES

Deletion p.58 III. Building Regulations

3-1-3---THE-COUNTY-SHOULD-ADOPT-AND-ENFORCE-MINIMUM-EFFICIENCY STANDARDS-FOR-EXISTING-BUILDINGS.

Addition p. 60 IX. Other

9.1.5

ALL PROGRAMS AND STRATEGIES PROPOSED TO CARRY OUT
THE ENERGY GOALS AND POLICIES SHOULD BE EVALUATED
AND IMPLEMENTED WITH PRIME CONSIDERATION GIVEN TO
ECONOMIC FACTORS SO THAT PREFERENCE WILL BE GIVEN TO
APPROACHES WHICH ARE ECONOMICAL.

Alternative

9.1.5 ECONOMIC COSTS AND BENEFITS SHOULD BE EVALUATED FOR ALL PROGRAMS PROPOSED TO CARRY OUT ENERGY GOALS AND POLICIES AND PREFERENCES GIVEN TO THOSE WITH THE BEST COST TO BENEFIT RATIO.

E. THE LOCATION, DENSITY AND MIX OF LAND USES WILL PROVIDE OPPORTUNITIES FOR ENERGY PRODUCTION, STORAGE AND DISTRIBUTION AND THE USE OF RENEWABLE

BESONBCES

Effective mixes and densities of compatible land uses increase the feasibility of energy—efficient, on–site generation systems. Increased densities also permit reduced costs through less extensive utility distribution networks and allow for shared energy collection and thermal storage facilities. A second component of this goal is that the County should identify and protect those areas which offer unique opportunities for future energy production. Examples of these areas include ridges and mountain passes which are potential wind generation sites, areas with geothermal potential and areas with small-scale hydro wind generation sites, areas with geothermal potential and areas with small-scale hydro potential. The County will also need to provide techniques for assuring that solar systems are permitted uses in all zones and guaranteeing the highest practical level of access are permitted uses in all zones and guaranteeing the highest practical level of access to sunlight for existing and future systems.

EFFICIENCY WILL-BE ENCOURAGED.

EFFICIENCY WILL-BE ENCOURAGED.

Land use development concepts which offer unique potential for energy-efficiency should be given careful consideration by the County. The possible evolution of a new town may offer the greatest potential for energy-efficiency because of its unique ability to reduce transportation and building energy requirements for a large number of people. Large parcel developments, such as shopping malls, subdivisions, hospitals and community facilities may provide opportunities for the application of energy-efficient total energy systems. Industrial parks offer the possibility for the incorporation of cogeneration facilities and the sharing of process heat between two industries. Shared solar collector/storage systems used by several residences or businesses within a neighborhood may provide systems used by several residences or businesses within a neighborhood may provide additional opportunities for achieving energy benefits.

BHOULD GE PLANS, POLICIES AND REGULATIONS WILL-BE CONSISTENT WITH ENERGY-EF-FICIENT LAND USE GOALS POLICIES AND PROGRAMS.

Many King County plans, policies and regulations evolved during a period of time when energy considerations were not incorporated into the land use decision making process. The preparation of the General Development Guide offers a framework for the consideration of the General Development in the County. However, in order to assure a consistent approach to the adopted energy goals, it will be necessary to review and, if appropriate, to modify adopted energy goals, it will be necessary to review and, ginally addressed energy issues. Particularly, recently adopted community plans, whose policies guide development for a minimum period of six years, should be examined to determine how energy-efficient policies may be included prior to their originally scheduled development for a minimum period of six years, should be examined to determine how energy-efficient policies may be included prior to their originally scheduled in effect for several years and may offer the opportunity for the inclusion of energy considerations.

II. Land Use Goals

SHOULD

A. ENERGY CONSIDERATIONS SHALL-BE AN INTEGRAL PART OF THE LAND USE DECISION MAKING PROCESS.

Housing and employment growth in King County is increasing the level of energy consumption. Simultaneously, the County is facing the potential constraints imposed by the increasing cost of energy and the decreasing reliability of petroleum and electricity supplies. As a means for reducing this vulnerability, King County, in partnership with other local government jurisdictions and the private sector, should weigh land use decisions with respect to energy expenditures associated with transportation, the heating and lighting of buildings and capital expenditures.

B. THE LOCATION, DENSITY AND MIX OF LAND USES WILL MINIMIZE THE CONSUMPTION OF ENERGY FOR TRANSPORTATION.

The effectiveness of public transit is enhanced by increasing the density of employment centers and residential areas. By planning for the proximate location of employment and commercial centers—establishments relative to residential siting, the effective length of the home—to— work and home—to—store trip may be decreased, further reducing energy expenditures. By promoting mixes of land uses, for instance commercial, residential and recreational uses, a coherent energy—efficient transportation network with provisions for pedestrian, bicycle and light rail systems may become more socially and economically attractive.

C. THE LOCATION, DENSITY AND MIX OF LAND USES WILL MINIMIZE THE CONSUMPTION OF ENERGY IN BUILDINGS.

An effective mix of compatible land uses and increased numbers of energy-efficient building types, such as those characterized by common-wall construction, provides an opportunity for reducing energy consumption. The land use decision-making process should recognize the significant variations in local climate patterns when considering the zoning of uses.

D. ENERGY EFFICIENT SITE AND BUILDING DESIGN WILL-BE ENCOURAGED.

By promoting energy—efficient site planning which is responsive to features of a site, the County may attain benefits by guaranteeing solar access, promoting effective building orientation and taking advantage of unique features such as wind—protecting vegetation. Implicit to this goal is an understanding of the relationships among site characteristics (particularly the microclimate), building design and occupant comfort.

EFFICIENT AS CURRENT TECHNOLOGY AND LIFE CYCLE ECONOMICS WILL ALLOW.

F. ALL COMMERCIAL AND INDUSTRIAL ENERGY CONSUMING PROCESSES WILL ALLOW.

Substantial energy can be saved through management of energy used in commercial and industrial processes. Energy forms can be more appropriately matched to the end use, processing equipment can be modified and waste heat can be utilized to achieve increased levels of energy efficiency in commercial/industrial processes.

IV. Transportation Goals

A. AN ENERGY EFFICIENT TRANSPORTATION SYSTEM WILL BE AVAILABLE TO MEET THE TRAVEL NEEDS OF THE COUNTY.

There are a number of energy efficient transportation modes which offer an alternative to the private auto as a means of travel. These modes – busses, trolleys, fixed guideway systems, bicycles and walking – provide the opportunity to travel while consuming no fossil fuels at all or consuming petroleum at a low, per passenger rate than the private auto. Access to these transportation modes must be improved and expanded so that King County citizens, through exercising their choice of mode, can reduce consumption of gasoline.

B. THE NEED FOR TRAVEL WILL BE REDUCED.

Energy consumption in the transportation sector can be reduced by lessening the distance people travel to work, shop and recreate and by decreasing the number of trips people make. Driving fewer miles reduces energy consumption. Strategies which encourage mixed land uses and higher densities, for example, can reduce travel demand. If a number of activities are located at one site, one trip can serve many purposes, thereby reducing the number of trips. Moreover, if residential land use is encouraged in close proximity to employment and commercial centers, distance can be decreased. This goal takes into account the key role that land use plays in influencing transportation energy use.

C. THE USE OF LOW-OCCUPANCY MOTOR VEHICLES WILL BE REDUCED.

The low occupancy or single occupant vehicle (SOV) is one of the most inefficient transportation modes. There is a need to develop a wide variety of incentives and disincentives to the use of the SOV. Increasing vehicle occupancy and parking management strategies are two methods of lessening SOV use. While the use of low-occupancy vehicles should be reduced throughout the County, special emphasis should be placed upon SOV use in urban areas where their numbers contribute to energy inefficiency, congestion and higher air pollution levels and where greater opportunity exists for use of alternative modes of transportation.

SHOULD

D. HIGH EFFICIENCY VEHICLES WILL BE WIDELY USED IN THE COUNTY.

The vehicle itself is the focus of this goal. Two elements of vehicle fuel efficiency are considered. In the first place, more energy efficient vehicles should be in use. These are vehicles which, through design and technology, have high mileage per gallon ratios. In addition, existing vehicles can be rendered more efficient through improved operation and maintenance. Thus, this goal encompasses both the existing stock (through O&M improvements) and new purchases (through encouraging use of high MPG vehicles).

E. INSTITUTIONAL ARRANGEMENTS WHICH ALLOW LOCAL GOVERNMENTS AND TECHNICAL EXPERIES AND EXPERIENCE.

A prerequisite to good energy management is the energy sudit, the purpose of which is the collection of data on energy consumption patterns and the identification of areas of waste and potential savings. The exchange of energy audit information and energy management ideas and experience among local governments, and between local governments ments and the private sector, will enhance the conservation efforts of local governments.

F. LOCAL GOVERNMENTS—WEE HAVE THE CAPABILITY TO RESPOND TO ENERGY SUPPLY SHORTED MANNER.

Local governments, in cooperation with energy suppliers and the private sector, have a responsibility to be prepared for severe energy supply interruptions. In support of State and regional curtailment plans, coordinated contingency planning among local governments can ensure responsiveness to local conditions or circumstances while taking advantage of areawide opportunities for conservation.

ill. Residential, Commercial and Industrial Goals

A. EXISTING RESIDENTIAL, COMMERCIAL AND INDUSTRIAL STRUCTURES IN THE COUNTY SHOULD MADE AS ENERGY EFFICIENT AS CURRENT TECHNOLOGY AND LIFE CYCLE ECONOMICS WILL ALLOW.

A large proportion of the buildings in the County were built when energy was less expensive and readily available. Energy efficiency was not a significant component of their design or construction. There are many opportunities to cost-effectively reduce energy consumption in these buildings.

B. NEW RESIDENTIAL, COMMERCIAL AND INDUSTRIAL STRUCTURES IN THE COUNTY WHELL DE DESIGNED AND CONSTRUCTED TO BE AS ENERGY EFFICIENT AS CURRENT TECH-NOLOGY AND LIFE CYCLE ECONOMICS WILL ALLOW.

It is imperative that new buildings be designed and constructed to be energy efficient. Building standards represent the minimum acceptable level of energy efficiency. There remain significant opportunities for increasing the energy efficiency of buildings to life-cycle cost-effective levels.

C. ALL STRUCTURES IN THE COUNTY WILL BE OPERATED IN AN ENERGY EFFICIENT MANNER.

The manner in which a building's energy—consuming systems are operated and maintained is related directly to the building's energy efficiency. Building owners and managers can achieve substantial energy savings through no or low—cost modifications to heating, lighting and ventilation equipment and by instituting simple operation and maintenance procedures.

D. ENERGY CONSUMING EQUIPMENT AND HOUSEHOLD APPLIANCES WILL BE ENERGY EFFICIENT, SAFE AND ENVIRONMENTALLY ACCEPTABLE.

The efficiency of energy consuming equipment and appliances installed in new and existing buildings can make a significant difference in the energy consumed during the operational life of the equipment. Consumers must be made aware of the relative economics of such equipment, as well as be informed about their proper installation and operation.

E. RENEWABLE ENERGY RESOURCES, PARTICULARLY PASSIVE SOLAR APPLICATIONS, SHOULD UTILIZED IN NEW AND EXISTING HOUSING, COMMERCIAL AND INDUSTRIAL FACILITIES.

Many renewable energy sources are suitable for the relatively low-temperature demands of building space and water heating as well as to the high temperature demands of certain commercial/industrial processes. Solar energy, geothermal direct heat, cogeneration systems and biomass can now, or in the near future, be incorporated into the design of new structures or economically retrofitted into existing buildings.

E. TRANSPORTATION SYSTEMS AND FACILITIES WILL OPERATE SO AS TO MINIMIZE THE USE OF ENERGY.

This goal intends to utilize transporation system management and other tools to increase the efficiency of the current and future King County transportation system. Strategies which attempt to meet this goal include dedication of existing or future traffic lanes to transit or car pool use, traffic engineering solutions such as synchronization of traffic signals (reducing stops and thus the need to idle a vehicle) and reducing peak-hour volume through flex time and staggered work hours.

F. ALTERNATIVE FUELS, ESPECIALLY THOSE PRODUCED FROM RENEWABLE RESOURCES, MILL-BE WIDELY AVAILABLE IN THE COUNTY.

The reliance of the sector upon an uncertain (and domestically dwindling) supply of fuel and the current inability to substitute for gasoline underscores the need to increase the use of renewables for transportation. Through research and demonstration projects, the use of renewable resources in producing fuel (from biomass, for example) can be reduced.

V. Government Operation Goals

A. ENERGY CONSIDERATIONS WELL BE AN INTEGRAL PART OF THE PLANNING AND ADMINISTRATIVE PROCESSES OF LOCAL GOVERNMENTS.

Local governments have numerous opportunities to influence energy consumption through normal processes such as the budget planning, capital improvements planning, purchasing and building design and improvements. When energy criteria are made part of these processes, they can become tools for better energy management.

B. LOCAL GOVERNMENTS WILL PLAN AND OPERATE THEIR FACILITIES AND VEHICLE FLEETS IN A MANNER WHICH MINIMIZES ENERGY CONSUMPTION AND TAKES FULL ADVANTAGE OF RENEWABLE RESOURCE OPPORTUNITIES.

Local governments have many opportunities within their own operations to set an example for the public by reducing energy consumption and demonstrating alternative energy technologies.

C. ALL LOCAL GOVERNMENTS IN KING COUNTY WEE HAVE ADEQUATE FINANCIAL AND TECHNICAL CAPABILITY TO DEVELOP, IMPLEMENT, MONITOR AND EVALUATE ENERGY POLICIES AND PROGRAMS.

The level and quality of energy management activities in local governments in King County are not consistent. This variability is due, in part, to differing levels of funding and technical capability among local governments.

D. LOCAL GOVERNMENTS IN KING COUNTY WHIL HAVE ACCESS TO CONSISTENT, UP-TO-DATE AND RELIABLE INFORMATION ON THE FUTURE PRICE AND AVAILABILITY OF CONVENTIONAL AND RENEWABLE ENERGY SUPPLIES, TECHNOLOGIES AND CONSERVATION OPTIONS.

Adequate planning depends on realistic forecasting of energy prices and supplies. Such data, coupled with current information on energy management technologies, will improve local government ability to assess energy management alternatives. The establishment of a local, central entity to gather and disseminate energy information will facilitate this process.

VI. Renewable Resource Goals

A. LOCAL GOVERNMENT PLANNING AND DECISION MAKING PROCESSES WHO THE DEVELOPMENT AND USE OF RENEWABLE RESOURCES.

Local governments have the opportunity within planning and decision making processes to identify and promote the development of renewable energy resources. By establishing resource identification and evaluation procedures and requiring consideration of local renewable resource development within the county—wide and community planning decision making processes, the County can stimulate private sector action relating to renewable resource development and use.

B. LOCAL GOVERNMENT REGULATIONS AND ADMINISTRATIVE PROCEDURE-WILL PROMOTE THE DEVELOPMENT AND USE OF RENEWABLE RESOURCES.

The County has the opportunity to create a more favorable climate for local renewable resource development through the adoption of appropriate codes and ordinances. In addition, the County has an excellent opportunity to promote and encourage renewable resource development through educational, incentive and mandatory programs administered through the County regulatory/administrative framework.

C. THE PUBLIC WHOULD AWARE OF THE ECONOMIC, ECOLOGICAL, SOCIAL AND POLITICAL BENEFITS OFFERED BY THE USE OF RENEWABLE RESOURCES.

The public has misconceptions regarding the ability of solar and other renewable resources to meet future energy demands. Continued heavy reliance on energy supplies beyond local influence entails direct risks to the social and economic welfare of King County. Advantages, both to the individual consumer and to the community, offered by the development of locally available renewable resources, should be recognized within the County.

D. AN ECONOMIC CLIMATE WHICH WILL ENCOURAGE THE USE OF RENEWABLE RESOURCES WILL EXIST IN KING COUNTY.

A major reason for locally available renewable resources not being developed is the lack of availability of financing. The high first costs and decentralized nature of solar and other renewable energy technologies requires new financing arrangements to enable their widespread utilization.

E. PUBLIC AND PRIVATE ENTITIES WILL COOPERATE TO ACHIEVE FULL UTILIZATION OF THE COUNTY'S RENEWABLE RESOURCE.

It is important to widespread development of local renewable energy resources for the private and public sectors to cooperatively insure the safe construction, installation and operation of the energy efficient technologies.

ORD. NO. 5770

PROPOSED ORO 31-721

ADDENDUM TO BE ADDED TO THE ENERGY MANAGEMENT PROGRAM GOALS AND POLICIES

GOALS pp. 44-52

Revise the first "will" in each Goal to the word "should". (See attached revised wording of Goals Statements)

POLICIES

Deletion p.58 III. Building Regulations

3-1-3---THE-COUNTY-SHOULD-ADOPT-AND-ENFORCE-MINIMUM-EFFICIENCY STANDARDS-FOR-EXISTING-BUILDINGS.

Addition p. 60 IX. Other

ALL PROGRAMS AND STRATEGIES PROPOSED TO CARRY OUT
THE ENERGY GOALS AND POLICIES SHOULD BE EVALUATED
AND IMPLEMENTED WITH PRIME CONSIDERATION GIVEN TO
ECONOMIC FACTORS SO THAT PREFERENCE WILL BE GIVEN TO
APPROACHES WHICH ARE ECONOMICAL.

Alternative

9.1.5 ECONOMIC COSTS AND BENEFITS SHOULD BE EVALUATED FOR ALL PROGRAMS PROPOSED TO CARRY OUT ENERGY GOALS AND POLICIES AND PREFERENCES GIVEN TO THOSE WITH THE BEST COST TO BENEFIT RATIO.

PROPOSED ORD 81-721 ORD. NO. 5770

ADDENDUM TO BE ADDED TO THE ENERGY MANAGEMENT PROGRAM GOALS AND POLICIES

GOALS pp. 44-52

Revise the first "will" in each Goal to the word "should".

(See attached revised wording of Goals Statements)

POLICIES

Deletion p.58 III. Building Regulations

3-1-3---THE-GOUNTY-SHOULD-ADOPT-AND-ENFORCE-MINIMUM-EFFICIENCY STANDARDS-FOR-EXISTING-BUILDINGS.

Addition p. 60 IX. Other

9.1.5

ALL PROGRAMS AND STRATEGIES PROPOSED TO CARRY OUT
THE ENERGY GOALS AND POLICIES SHOULD BE EVALUATED
AND IMPLEMENTED WITH PRIME CONSIDERATION GIVEN TO
ECONOMIC FACTORS SO THAT PREFERENCE WILL BE GIVEN TO
APPROACHES WHICH ARE ECONOMICAL.

Alternative

9.1.5 ECONOMIC COSTS AND BENEFITS SHOULD BE EVALUATED FOR ALL PROGRAMS PROPOSED TO CARRY OUT ENERGY GOALS AND POLICIES AND PREFERENCES GIVEN TO THOSE WITH THE BEST COST TO BENEFIT RATIO.

II. Land Use Goals

SHOULD

A. ENERGY CONSIDERATIONS SHALL-BE AN INTEGRAL PART OF THE LAND USE DECISION MAKING PROCESS.

Housing and employment growth in King County is increasing the level of energy consumption. Simultaneously, the County is facing the potential constraints imposed by the increasing cost of energy and the decreasing reliability of petroleum and electricity supplies. As a means for reducing this vulnerability, King County, in partnership with other local government jurisdictions and the private sector, should weigh land use decisions with respect to energy expenditures associated with transportation, the heating and lighting of buildings and capital expenditures.

B. THE LOCATION, DENSITY AND MIX OF LAND USES WILL MINIMIZE THE CONSUMPTION OF ENERGY FOR TRANSPORTATION.

The effectiveness of public transit is enhanced by increasing the density of employment centers and residential areas. By planning for the proximate location of employment and commercial centers—establishments relative to residential siting, the effective length of the home—to—work and home—to—store trip may be decreased, further reducing energy expenditures. By promoting mixes of land uses, for instance commercial, residential and recreational uses, a coherent energy—efficient transportation network with provisions for pedestrian, bicycle and light rail systems may become more socially and economically attractive.

C. THE LOCATION, DENSITY AND MIX OF LAND USES WILL MINIMIZE THE CONSUMPTION OF ENERGY IN BUILDINGS.

An effective mix of compatible land uses and increased numbers of energy-efficient building types, such as those characterized by common-wall construction, provides an opportunity for reducing energy consumption. The land use decision-making process should recognize the significant variations in local climate patterns when considering the zoning of uses.

D. ENERGY EFFICIENT SITE AND BUILDING DESIGN WILL-BE ENCOURAGED.

By promoting energy-efficient site planning which is responsive to features of a site, the County may attain benefits by guaranteeing solar access, promoting effective building orientation and taking advantage of unique features such as wind-protecting vegetation. Implicit to this goal is an understanding of the relationships among site characteristics (particularly the microclimate), building design and occupant comfort.

E. THE LOCATION, DENSITY AND MIX OF LAND USES WILL-PROVIDE OPPORTUNITIES FOR ENERGY PRODUCTION, STORAGE AND DISTRIBUTION AND THE USE OF RENEWABLE RESOURCES.

Effective mixes and densities of compatible land uses increase the feasibility of energy-efficient, on-site generation systems. Increased densities also permit reduced costs through less extensive utility distribution networks and allow for shared energy collection and thermal storage facilities. A second component of this goal is that the County should identify and protect those areas which offer unique opportunities for future energy production. Examples of these areas include ridges and mountain passes which are potential wind generation sites, areas with geothermal potential and areas with small-scale hydro potential. The County will also need to provide techniques for assuring that solar systems are permitted uses in all zones and guaranteeing the highest practical level of access to sunlight for existing and future systems.

F. LAND USE DEVELOPMENT PLANS WHICH OFFER INNOVATIVE OPPORTUNITIES FOR ENERGY SHOULD EFFICIENCY WILL-BE ENCOURAGED.

Land use development concepts which offer unique potential for energy-efficiency should be given careful consideration by the County. The possible evolution of a new town may offer the greatest potential for energy-efficiency because of its unique ability to reduce transportation and building energy requirements for a large number of people. Large parcel developments, such as shopping malls, subdivisions, hospitals and community facilities may provide opportunities for the application of energy-efficient total energy systems. Industrial parks offer the possibility for the incorporation of cogeneration facilities and the sharing of process heat between two industries. Shared solar collector/storage systems used by several residences or businesses within a neighborhood may provide additional opportunities for achieving energy benefits.

SHOULD

G. LAND USE PLANS, POLICIES AND REGULATIONS WILL-BE CONSISTENT WITH ENERGY-EF-FICIENT LAND USE GOALS POLICIES AND PROGRAMS.

Many King County plans, policies and regulations evolved during a period of time when energy considerations were not incorporated into the land use decision making process. The preparation of the General Development Guide offers a framework for the consideration of energy issues in new development in the County. However, in order to assure a consistent approach to the adopted energy goals, it will be necessary to review and, if appropriate, to modify adopted County policies and programs which may not have originally addressed energy issues. Particularly, recently adopted community plans, whose policies guide development for a minimum period of six years, should be examined to determine how energy-efficient policies may be included prior to their originally scheduled review. Current Capital Improvements Program and Housing Assistance Plans also are in effect for several years and may offer the opportunity for the inclusion of energy considerations.

III. Residential. Commercial and Industrial Goals

A. EXISTING RESIDENTIAL, COMMERCIAL AND INDUSTRIAL STRUCTURES IN THE COUNTY SHOULD MADE AS ENERGY EFFICIENT AS CURRENT TECHNOLOGY AND LIFE CYCLE ECONOMICS WILL ALLOW.

A large proportion of the buildings in the County were built when energy was less expensive and readily available. Energy efficiency was not a significant component of their design or construction. There are many opportunities to cost-effectively reduce energy consumption in these buildings.

B. NEW RESIDENTIAL, COMMERCIAL AND INDUSTRIAL STRUCTURES IN THE COUNTY WHEN TH

It is imperative that new buildings be designed and constructed to be energy efficient. Building standards represent the minimum acceptable level of energy efficiency. There remain significant opportunities for increasing the energy efficiency of buildings to life-cycle cost-effective levels.

C. ALL STRUCTURES IN THE COUNTY WILL BE OPERATED IN AN ENERGY EFFICIENT MANNER.

The manner in which a building's energy-consuming systems are operated and maintained is related directly to the building's energy efficiency. Building owners and managers can achieve substantial energy savings through no or low-cost modifications to heating, lighting and ventilation equipment and by instituting simple operation and maintenance procedures.

D. ENERGY CONSUMING EQUIPMENT AND HOUSEHOLD APPLIANCES WILL BE ENERGY EFFICIENT, SAFE AND ENVIRONMENTALLY ACCEPTABLE.

The efficiency of energy consuming equipment and appliances installed in new and existing buildings can make a significant difference in the energy consumed during the operational life of the equipment. Consumers must be made aware of the relative economics of such equipment, as well as be informed about their proper installation and operation.

E. RENEWABLE ENERGY RESOURCES, PARTICULARLY PASSIVE SOLAR APPLICATIONS,
SHOULD UTILIZED IN NEW AND EXISTING HOUSING, COMMERCIAL AND INDUSTRIAL FACILITIES.

Many renewable energy sources are suitable for the relatively low-temperature demands of building space and water heating as well as to the high temperature demands of certain commercial/industrial processes. Solar energy, geothermal direct heat, cogeneration systems and biomass can now, or in the near future, be incorporated into the design of new structures or economically retrofitted into existing buildings.

F. ALL COMMERCIAL AND INDUSTRIAL ENERGY CONSUMING PROCESSES WILL BE AS ENERGY EFFICIENT AS CURRENT TECHNOLOGY AND LIFE CYCLE ECONOMICS WILL ALLOW.

Substantial energy can be saved through management of energy used in commercial and industrial processes. Energy forms can be more appropriately matched to the end use, processing equipment can be modified and waste heat can be utilized to achieve increased levels of energy efficiency in commercial/industrial processes.

IV. Transportation Goals

A. AN ENERGY EFFICIENT TRANSPORTATION SYSTEM WILL BE AVAILABLE TO MEET THE TRAVEL NEEDS OF THE COUNTY.

There are a number of energy efficient transportation modes which offer an alternative to the private auto as a means of travel. These modes – busses, trolleys, fixed guideway systems, bicycles and walking – provide the opportunity to travel while consuming no fossil fuels at all or consuming petroleum at a low, per passenger rate than the private auto. Access to these transportation modes must be improved and expanded so that King County citizens, through exercising their choice of mode, can reduce consumption of gasoline.

B. THE NEED FOR TRAVEL WILL BE REDUCED.

Energy consumption in the transportation sector can be reduced by lessening the distance people travel to work, shop and recreate and by decreasing the number of trips people make. Driving fewer miles reduces energy consumption. Strategies which encourage mixed land uses and higher densities, for example, can reduce travel demand. If a number of activities are located at one site, one trip can serve many purposes, thereby reducing the number of trips. Moreover, if residential land use is encouraged in close proximity to employment and commercial centers, distance can be decreased. This goal takes into account the key role that land use plays in influencing transportation energy use.

C. THE USE OF LOW-OCCUPANCY MOTOR VEHICLES WILL BE REDUCED.

The low occupancy or single occupant vehicle (SOV) is one of the most inefficient transportation modes. There is a need to develop a wide variety of incentives and disincentives to the use of the SOV. Increasing vehicle occupancy and parking management strategies are two methods of lessening SOV use. While the use of low-occupancy vehicles should be reduced throughout the County, special emphasis should be placed upon SOV use in urban areas where their numbers contribute to energy inefficiency, congestion and higher air pollution levels and where greater opportunity exists for use of alternative modes of transportation.

SHOULD

D. HIGH EFFICIENCY VEHICLES WILL BE WIDELY USED IN THE COUNTY.

The vehicle itself is the focus of this goal. Two elements of vehicle fuel efficiency are considered. In the first place, more energy efficient vehicles should be in use. These are vehicles which, through design and technology, have high mileage per gallon ratios. In addition, existing vehicles can be rendered more efficient through improved operation and maintenance. Thus, this goal encompasses both the existing stock (through O&M improvements) and new purchases (through encouraging use of high MPG vehicles).

E. TRANSPORTATION SYSTEMS AND FACILITIES WILL OPERATE SO AS TO MINIMIZE THE USE OF ENERGY.

This goal intends to utilize transporation system management and other tools to increase the efficiency of the current and future King County transportation system. Strategies which attempt to meet this goal include dedication of existing or future traffic lanes to transit or car pool use, traffic engineering solutions such as synchronization of traffic signals (reducing stops and thus the need to idle a vehicle) and reducing peak—hour volume through flex time and staggered work hours.

F. ALTERNATIVE FUELS, ESPECIALLY THOSE PRODUCED FROM RENEWABLE RESOURCES, SHOULD WILL-BE WIDELY AVAILABLE IN THE COUNTY.

The reliance of the sector upon an uncertain (and domestically dwindling) supply of fuel and the current inability to substitute for gasoline underscores the need to increase the use of renewables for transportation. Through research and demonstration projects, the use of renewable resources in producing fuel (from biomass, for example) can be reduced.

V. Government Operation Goals

A. ENERGY CONSIDERATIONS WILL BE AN INTEGRAL PART OF THE PLANNING AND ADMINISTRATIVE PROCESSES OF LOCAL GOVERNMENTS.

Local governments have numerous opportunities to influence energy consumption through normal processes such as the budget planning, capital improvements planning, purchasing and building design and improvements. When energy criteria are made part of these processes, they can become tools for better energy management.

B. LOCAL GOVERNMENTS WILL PLAN AND OPERATE THEIR FACILITIES AND VEHICLE FLEETS IN A MANNER WHICH MINIMIZES ENERGY CONSUMPTION AND TAKES FULL ADVANTAGE OF RENEWABLE RESOURCE OPPORTUNITIES.

Local governments have many opportunities within their own operations to set an example for the public by reducing energy consumption and demonstrating alternative energy technologies.

C. ALL LOCAL GOVERNMENTS IN KING COUNTY WEE HAVE ADEQUATE FINANCIAL AND TECHNICAL CAPABILITY TO DEVELOP, IMPLEMENT, MONITOR AND EVALUATE ENERGY POLICIES AND PROGRAMS.

The level and quality of energy management activities in local governments in King County are not consistent. This variability is due, in part, to differing levels of funding and technical capability among local governments.

D. LOCAL GOVERNMENTS IN KING COUNTY WILL HAVE ACCESS TO CONSISTENT, UP-TO-DATE AND RELIABLE INFORMATION ON THE FUTURE PRICE AND AVAILABILITY OF CONVENTIONAL AND RENEWABLE ENERGY SUPPLIES, TECHNOLOGIES AND CONSERVATION OPTIONS.

Adequate planning depends on realistic forecasting of energy prices and supplies. Such data, coupled with current information on energy management technologies, will improve local government ability to assess energy management alternatives. The establishment of a local, central entity to gather and disseminate energy information will facilitate this process.

E. INSTITUTIONAL ARRANGEMENTS WHILL-EXIST WHICH ALLOW LOCAL GOVERNMENTS AND THE PRIVATE SECTOR TO SHARE ENERGY MANAGEMENT RESOURCES, INFORMATION, TECHNICAL EXPERTISE AND EXPERIENCE.

A prerequisite to good energy management is the energy audit, the purpose of which is the collection of data on energy consumption patterns and the identification of areas of waste and potential savings. The exchange of energy audit information and energy management ideas and experience among local governments, and between local governments and the private sector, will enhance the conservation efforts of local governments.

F. LOCAL GOVERNMENTS—WHE HAVE THE CAPABILITY TO RESPOND TO ENERGY SUPPLY SHORTAGES IN A TIMELY, CONSISTENT AND COORDINATED MANNER.

Local governments, in cooperation with energy suppliers and the private sector, have a responsibility to be prepared for severe energy supply interruptions. In support of State and regional curtailment plans, coordinated contingency planning among local governments can ensure responsiveness to local conditions or circumstances while taking advantage of areawide opportunities for conservation.

VI. Renewable Resource Goals

A. LOCAL GOVERNMENT PLANNING AND DECISION MAKING PROCESSES WELLING UDE CONSIDERATION OF OPPORTUNITIES FOR THE DEVELOPMENT AND USE OF RENEWABLE RESOURCES.

Local governments have the opportunity within planning and decision making processes to identify and promote the development of renewable energy resources. By establishing resource identification and evaluation procedures and requiring consideration of local renewable resource development within the county-wide and community planning decision making processes, the County can stimulate private sector action relating to renewable resource development and use.

B. LOCAL GOVERNMENT REGULATIONS AND ADMINISTRATIVE PROCEDURE—WILL PROMOTE THE DEVELOPMENT AND USE OF RENEWABLE RESOURCES.

The County has the opportunity to create a more favorable climate for local renewable resource development through the adoption of appropriate codes and ordinances. In addition, the County has an excellent opportunity to promote and encourage renewable resource development through educational, incentive and mandatory programs administered through the County regulatory/administrative framework.

C. THE PUBLIC WHE BE AWARE OF THE ECONOMIC, ECOLOGICAL, SOCIAL AND POLITICAL BENEFITS OFFERED BY THE USE OF RENEWABLE RESOURCES.

The public has misconceptions regarding the ability of solar and other renewable resources to meet future energy demands. Continued heavy reliance on energy supplies beyond local influence entails direct risks to the social and economic welfare of King County. Advantages, both to the individual consumer and to the community, offered by the development of locally available renewable resources, should be recognized within the County.

D. AN ECONOMIC CLIMATE WHICH WILL ENCOURAGE THE USE OF RENEWABLE RESOURCES WILL EXIST IN KING COUNTY.

A major reason for locally available renewable resources not being developed is the lack of availability of financing. The high first costs and decentralized nature of solar and other renewable energy technologies requires new financing arrangements to enable their widespread utilization.

E. PUBLIC AND PRIVATE ENTITIES WILL COOPERATE TO ACHIEVE FULL UTILIZATION OF THE COUNTY'S RENEWABLE RESOURCE.

It is important to widespread development of local renewable energy resources for the private and public sectors to cooperatively insure the safe construction, installation and operation of the energy efficient technologies.

AVAILABLE IN THE CLERK'S OFFICE CROINANCE 5.770 L.

Enalgy Managenali Diam

tor Samuel State of the State o

king County Energy Planning Projects: November 1980

> GOVERNMENT PHREICATIONS DIVINIONS 8:

l, li Wâte teorite

HD 9502 U53 W247 1980 V.1-2