

The Case: Dirty Air and Bright Lights *Worksheet Key*

Your family enjoys a brightly lighted house, especially during the holidays. Well, everyone but Dad, who is always walking around turning lights off. He is, of course, a cheapskate and a spoilsport - not to mention a Scrooge! The house is decorated with boughs and wreaths and a big Holiday tree inside, and outside there are lights all around the house, along the gutters and around the trees. People come from all around the region to see the houses are your street because they are all so beautiful.

So what's the big deal with such festive illumination? Why does it bother your dad so much? There are, of course, several possible reasons:

He is just cheap and hates to pay the light bill.

He's a grouch and wants to make life dark and grim.

He wants to save energy so we don't have to depend on oil from the Middle East.

Well, these are all possible reasons, but what do any of them have to do with environmental health and ethics? Surely being cheap or grouchy is not likely to have obvious connections with environmental health. What about energy? It might be a good economic or political strategy to reduce reliance on foreign oil - and maybe even good ethics - but where's the health angle? How is Dad contributing to environmental health (perhaps unintentionally)?

Consider how the oil is actually used to make energy: It is burned. This burning oil is used to boil water to produce steam to drive turbines - which produce electricity. The burning also produces some air pollution. Dirty air can make people sick. So maybe there are some other reasons Dad might have for not using too much electricity.

He believes that every action affects everything, so we have to choose carefully.

He values a clean Earth environment, so he thinks about being Earth-friendly in everything he does.

This case might make you feel tense. Everybody likes pretty lights, especially at the holidays. Indeed, though, we rely on electricity for many activities of daily living. Surely environmental ethics does not require us to live in darkness!

The essential question here:

Is NOT: "Is it OK to turn on the living room light at 9 p.m. on Thursday?"

Is NOT: "Do we have to give up decorating for the holidays?"

BUT IT IS: "To what extent do I (and all electricity) users have a duty to reduce consumption as much as possible?"

Your task is to figure out where you stand on this issue of individual duty and support your position. To help you do this, you will consider some different positions people might take. You will be part of a policy team that will come up with policies. You will also be part of a position group that will argue for its perspective. You will have four rounds to figure this out.

## Round 1: Take a position

Here are the positions. You will play one role, but develop your own along the way.  
 Role #1: What I do won't make a difference! I'm just one person. Role #2: What I do makes a difference - everything is a system. Role #3: I like my holiday lights it's my right it's only once a year. Role #4: I conserve energy in other ways. Role #5: I'm not convinced there is a connection between my use of energy and air pollution.

1. Read the essential question and the case. What questions do you have about the case? Write them here:

*How much does it cost to use electricity? How much more use do the lights add?  
 How does air pollution from power plants compare to the air pollution from other sources, like automobiles?  
 What are the effects of air pollution? Does it just affect the air we breathe or other parts of the environment?  
 Is the air pollution problem getting worse or better?  
 What are the alternative sources of energy?  
 If the lights add a drain on electricity, what about the things we have plugged in all the time – clocks, television, phones, etc?  
 Where is the power plant that provides energy to my neighborhood?  
 Is there a way to make lights that use less energy?  
 Do power plants follow the guidelines for pollution? Who checks them? Are some allowed to pollute more than others? How often are the pollution guidelines evaluated?*

2. In your role, tell the group what you value and why. Give reasons for your position in your answer to the essential question - "To what extent do I have a duty to reduce consumption as much as possible?"

Role #1: What I do won't make a difference! I'm just one person.

*The pollution problem is not affected by just one person. If things need to be changed, our government needs to set different standards for the power plants. Even if I stop using electricity all together, our air pollution problem won't change. Maybe if the whole town made changes it would affect things, but no one is going to do that anyway. My choice to use electricity doesn't make the power plant produce more air pollution.*

Role #2: What I do makes a difference - everything is a system.

*We all have a responsibility to make choices for a cleaner, healthier environment. Maybe I won't directly see how my energy conservation makes a difference, but I can hope that there is a chain reaction – that each of us starts to see the important place our actions serve in our whole environment. I have seen in school how when one person has a great idea, other people jump on board to support it.*

Role #3: I like my holiday lights it's my right it's only once a year.

*The rest of the year, I am more than willing to conserve energy, but at Christmas, we need the lights to remind us of this time of the year. The lights bring people into our neighborhood, and everyone has such a great time putting them up, looking at them, and celebrating. Surely our enjoyment counts for something. Considering how much money everyone spends at Christmas, is the energy bill that much more money? Don't we have a right to celebrate and use electricity in the way that we want to? If we are*

*paying the bill and the power plant has to stick to standards, we can choose to use the energy in a way that makes us happy just for this time of year.*

Role #4: I conserve energy in other ways.

*We keep the heat pretty low in our house in the winter and we only use our air conditioning when it is really hot. We never leave lights on in rooms we aren't using. Some of our appliances are made to be energy efficient. We also keep our showers pretty short and our water heater is set low to use less energy. Since we conserve energy in all these ways, maybe it is okay to use more energy at Christmas for the lights.*

Role #5: I'm not convinced there is a connection between my use of energy and air pollution.

*I think air pollution is caused mostly from large factories and incinerators. My energy use is such a small amount compared with the large polluters in this country. The air pollution problem is the responsibility of the big companies not me. I think our cars, SUV's, and trucks contribute a lot more to air pollution. Probably our clear cutting of trees has a bigger affect on air quality problems.*

3. Now meet with other people who have your same role and find more reasons for your position and ways to explain it. Write them here so you can share them with your policy group.

4. For homework, decide what you value and what your position on this issue of individual duty is. Write your response to the question with your reasons in one page or less.

*NOTE: The evidence cited will depend on the reasons the students give the sources they use. The important thing here is that they see it as necessary to support a position they take with reasons based on evidence.*

*Role #5: I'm not convinced there is a connection between my use of energy and air pollution because:*

- 1. I think air pollution is caused mostly from large factories and incinerators... The evidence from the EPA.... The evidence from the global warming monitors...*
- 2. My energy use is such a small amount compared with the large polluters in this country. As an average household consumer, I use.... per.... If you look at that for a population of xxx, the consumption for my (town, state, the nation) is xxx compared with xxx for industry.*
- 3. The air pollution problem is the responsibility of the big companies not me.*
- 4. I think our cars, SUV's, and trucks contribute a lot more to air pollution.*
- 5. Probably our clear cutting of trees has a bigger affect on air quality problems.*

Round 2: Choose an ethical approach

1. Share your values and reasons with your group. Listen to how the other people in your group think about the issue of individual duty to reduce air pollution. Write down what they say that will help you with your answer to the question:

2. Meet with your role group again and read about the different ethical approaches. Decide which one(s) best fit your role. For example if you are in the group for role #3, "I like my holiday lights it's my right" you might choose a "Rights approach"

Ethical approach we chose:

Role #1: What I do won't make a difference! I'm just one person.

*Possible Approach: Virtue*

Role #2: What I do makes a difference - everything is a system.

*Possible Approach: Common Good*

Role #3: I like my holiday lights it's my right it's only once a year.

*Possible Approach: Rights*

Role #4: I conserve energy in other ways.

*Possible Approach: Utilitarian*

Role #5: I'm not convinced there is a connection between my use of energy and air pollution.

*Possible Approach: Justice*

How does this approach fit your thinking?

Role #1: What I do won't make a difference! I'm just one person.

*Possible Approach:*

Role #2: What I do makes a difference - everything is a system.

*Possible Approach: Common Good*

*I am responsible for thinking of the welfare of everyone – we all need to think about air pollution and how we contribute to it.*

Role #3: I like my holiday lights it's my right it's only once a year.

*Possible Approach: Rights*

*I have a right to use the resources I pay for.*

Role #4: I conserve energy in other ways.

*Possible Approach: Utilitarian*

*I use the lights this time of year which pleases my family and my neighborhood, but I am also thinking of the well-being of others by conserving energy in other ways.*

Role #5: I'm not convinced there is a connection between my use of energy and air pollution.

*Possible Approach: Justice*

*There are so many ways that our air is polluted. I don't think it's fair that I should have to think about my small use of energy and air pollution when the big companies are allowed to pollute our air so much more.*

How does it change your thinking?

Role #1: What I do won't make a difference! I'm just one person.

*Possible Approach: Utilitarian*

*If I can think about the greatest good for the most people, then everything I do matters.*

Role #2: What I do makes a difference - everything is a system.

*Possible Approach: Common Good*

*We all need clean air and access to our resources.*

Role #3: I like my holiday lights it's my right it's only once a year.

*Possible Approach: Rights*

*I have rights but so do other people. They have a right not to be harmed by my actions. I need to consider how my energy use affects others' right to clean air.*

Role #4: I conserve energy in other ways.

*Possible Approach: Virtue*

*I conserve energy in important ways, but to really grow as a virtuous person, I need to think about conserving energy in all the ways I can.*

Role #5: I'm not convinced there is a connection between my use of energy and air pollution.

*Possible Approach: Justice*

*It's not fair for me to make decisions which affect other people, just because I am uninformed.*

3. For homework, choose an ethical approach and add to your answer to the question.

### Different Approaches to Ethical Decision-Making

Philosophers have developed different ways to think about ethical issues. Of course, you have to gather the facts, consider the stakeholders, and develop several alternatives, but ethical decision-making requires more than that. We have to think about what we value in a decision. Here are five different approaches.

#### Utilitarian

Making decisions from a Utilitarian approach means seeking the choice that provides the greatest good for the greatest number. Jeremy Bentham and John Stuart Mill developed utilitarianism in the 19th century. The process of utilitarian choices includes examining what the options are, who is affected and how, and making a decision which will bring the least harm and the most good to the most people. In environmental health, utilitarian approaches would look for decisions that would not harm people, habitats, animals, and other resources while providing the greatest gain to those affected by the decision.

### Common Good

Philosophers, such as Plato, Aristotle, Cicero, supported the common good approach to ethical decision-making. Here, the highest value is placed on the shared goals of the community. This approach looks at the social systems and environment we all depend on and advocates using them in ways that all community members needs are addressed.

### Virtue

Virtue is one of the oldest concepts in ethics, appearing in writings by Homer and Sophocles. Aristotle's virtue theory became the foundation of moral discussion, supported by many others, such as Thomas Aquinas. Virtuous decision-making is choosing actions from a place of the highest possible human character. Virtue is based on an ideal set of characteristics of morality and the idea that each person can extend him/herself into acting in accordance with these moral characteristics. Virtue leads us to make decisions that encourage the moral development of ourselves and our community.

### Rights (Kant)

In the 18th century, Immanuel Kant promoted the rights approach to ethical problem solving. Kant proposed that people can only be thought of as ends and never as means. Each person has dignity and rights as a human being. Everyone can choose their own freedom and others need to respect their choices. Decision making from this perspective involves looking at how our choice may affect others free right to choose for themselves. Some of the rights outlined by Kant are the right to the truth, to privacy, to be free from harm, to what is agreed upon. In environmental terms, rights may be extended to a right to clean drinking water or the right to the truth about the toxicity of a public resource.

### Justice (Aristotle)

Justice involves fair treatment, decision making that does not favor or discriminate. Aristotle labeled two kinds of justice: distributive and corrective. Distributive justice rewards people for the merits they have. Corrective justice removes inequality by removing advantage from one party and giving it to the disadvantaged party.

### Round 3: Develop a policy

1. In your policy team, share how one or more of the ethical approaches supports or informs, or changes your position. Listen carefully to how people think about their choices and see what it teaches you. Write down ideas you can use for your own answer here:

Role #1: What I do won't make a difference! I'm just one person.

*Utilitarian – I need to think about my role in helping and not harming people*

*Common Good – what helps everyone the most is the most important and my decisions can affect everyone.*

*Virtue – To be virtuous, I need to set an example and develop my own character by the choices I make.*

*Rights – If I choose to do something which may cause more air pollution, then other people don't get to choose whether or not they breathe the air I've help pollute. Other people have the right to not be harmed by breathing polluted air.*

*Justice – I may be one person with the money to pay for all the energy I want to consume, but my financial advantage does not necessarily give me the right to use more than my share of energy or to contribute to air pollution.*

**Role #2: What I do makes a difference - everything is a system.**

*Utilitarian – If I think about the greatest good, I can see how my actions need to be consistent with how I see myself fitting in my community and environment. What I do can affect everyone's health and well-being.*

*Common Good – What helps everyone the most is the most important and my decisions can affect everyone.*

*Virtue – To be virtuous, I need to set an example and develop my own character by the choices I make. Seeing how everything is a system is helping me develop as a person.*

*Rights – When I work to preserve my right to clean air and balance it with my right to use energy, then I am also preserving others' rights to clean air and energy use.*

*Justice – Since I can see how what I do can affect the whole system, I choose to act in a way that is fair toward everyone my actions affect.*

**Role #3: I like my holiday lights it's my right it's only once a year.**

*Utilitarian – If I think about everyone's well-being, than my individual right to what I like doesn't carry the same weight.*

*Common Good – What helps everyone the most is the most important and my decisions can affect everyone.*

*Virtue – If I am to become a better person, I need to think beyond what I want or like if it hurts my environment or other people.*

*Rights – I have a right to what I want to do but other people have a right to clean air.*

*Justice – It's not fair for one person to get what they want if it can hurt other people in the long term.*

**Role #4: I conserve energy in other ways.**

*Utilitarian – The most good for the most people is probably conserving energy in as many ways as possible.*

*Common Good – What helps everyone the most is the most important and my decisions can affect everyone.*

*Virtue – To be virtuous, I need to set an example and develop my own character by the choices I make.*

*Rights – Everyone has the right to use our energy resources but more importantly they have the right to clean, useable resources. If I want to continue to have the right and access to clean resources, I need to learn how to be thoughtful in all my energy consumption.*

*Justice – It's not fair for me to decide which ways of conserving energy are more important than other ways of conserving energy.*

**Role #5: I'm not convinced there is a connection between my use of energy and air pollution.**

*Utilitarian – If I am concerned about not harming others, than even the threat of my use of energy and air pollution needs to be considered seriously.*

*Common Good – What helps everyone the most is the most important and my decisions can affect everyone.*

*Virtue – To be virtuous, I need to look at the evidence about the link between energy use and air pollution and make a decision from an educated perspective.*

*Rights – My ignorance does not give me the right to ignore the affects of my actions. Everyone has the right to clean air.*

*Justice – It's not fair for me to decide that I am not contributing to air pollution, without doing the research.*

2. Meet with your role group again and develop a policy that might encourage moderation and decreased waste for your role. For example, role #3 might be influenced to use fewer lights by limiting the energy available during holiday periods, or allowing only every other day lighting. Write your policies here: (come up with at least 3 alternatives). Take it back to your policy team for approval.

*Role #1: What I do won't make a difference! I'm just one person.*

*One person can make a difference by putting up a sign in their yard that says that this house only uses lights for this many hours a day or this many days a week or that we cut our energy use in these other ways. This way anyone who comes to appreciate the lights also learns something about conservation. We can cut our contribution to the air pollution problem.*

*Role #2: What I do makes a difference - everything is a system.*

*I can write a letter to the editor of my local paper about how my family is conserving energy this year during the Christmas lights time. I can show how our energy usage can be traced to the power plant to the fossil fuels burning to the air we breathe. This way I can show how everything is a system and my actions can affect the pollution cycle and the community action cycle.*

*Role #3: I like my holiday lights it's my right it's only once a year.*

*It's my right to have lights, but I can limit how I use them. We can light for only 2 hours a night or only on certain nights of the week.*

*We could find lights that use less energy – like battery-powered lights.*

*We can use less lights than we did on other years.*

*Role #4: I conserve energy in other ways.*

*Our family can look at our energy conservation from all angles – heating, air conditioning, water, trash, etc. We can together figure out where we are being excessive in our use of resources.*

*Role #5: I'm not convinced there is a connection between my use of energy and air pollution.*

*I can do research to learn about the connection between energy use and air pollution.*

*I can see what my community and state policies are for air pollution.*

*I can find out about the air quality where I live and compare it to other areas of the world.*

*I can find out about alternative energy sources.*

3. For homework, consider what might influence you, or others to take your personal position on individual duty around energy use.

*Finding out how many people get sick or die from air pollution.*

*Learning how air pollution affects rain, water, plants, etc.*

*Thinking about how energy use relates to conflict and war.  
Finding out how our actions will affect resource availability in the future.*

Round 4: Persuade others

1. Working with a partner, share your personal position, reasons, and policy ideas. Write down their questions, ideas, and thinking about your position.

*How will you convince other people in your family and community to use the lights differently this year?  
How do you weigh the benefit of the joy of having the lights with the cost of energy consumption and air pollution?  
How do you figure out what is fair?  
What is more important – our use today or availability in the future?  
How will you find out about pollution standards or the health effects of air pollution?  
How do you decide what an acceptable compromise might be?*

2. Write down what you learned about how they presented their position that will help you.

*They had a premise that was easily supported by some of the ethical principles.  
It's obvious from how they explain it that they have done some good research.  
It doesn't seem like they are putting what they want ahead of others.  
Their argument is logical – I can follow their thinking.  
It sounds like they have considered the alternatives and come to a good decision.*

3. Now on your own, take what you have written and turn it into a persuasive piece (letter to the editor, an elected representative, or their neighbors) to convince others of your position on individual duty