Notes for teachers:

This game is derived from a German board game: Energie-Poker from the 1970s

Interestingly, because of new oil discoveries and technologies, the numbers still work pretty

well

You will need:

One six-sided die

The energy and facility tokens cut into individual

The money cut into individual bills

Split the class into 4 countries for this game

## *Energie-Poker*

This game is about **resource depletion** and the concept of “**Peak Oil**”

**Hubbert peak theory** says that the rate of petroleum production tends to follow a bell shaped curve

Early in the curve, or pre-peak, the production rate increases due to an increase in the discovery rate of oil deposits and the addition of infrastructure

Late in the curve, or post-peak, the production declines due to resource depletion.

Hubbert peak theory is based on the assumption that the amount of oil under the ground is finite and more cannot be manufactured

**Peak Oil** refers to the peak of the entire planet's oil production. After Peak Oil, according to Hubbert peak theory, the rate of oil production on earth will enter a terminal decline

This is a German game

In German, “poker” means either “poker” or “haggling” – there is a lot of haggling in this game!

This game is based on the principle of “Peak Oil”

Peak Oil says that use of natural resources (like oil or coal or natural gas) starts out slow,

grows as technology improves and more people need energy created by the resource,

reaches a peak, and then begins to drop off as supplies dwindle

The game uses “Peak Oil” values from the early 1980s and forecasts through 2025

Oddly, because of newly-discovered sources of oil, coal and natural gas, the values are still

appropriate today!!

Start with 4 teams

Each team is an industrialized nation

**Our nation is called: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Before starting, each nation is issued 20 energy dollars

Each nation rolls a red (oil), black (coal), and yellow (natural gas) die

If the die is a 1 or a 6, the nation gets a well or mine associated with that color

That energy resource is available to them for the game

A nation can only have one of each type of well or mine

At any time, nuclear power plants (blue) can be purchased for 10 energy dollars each

A nation can have a maximum of 2 nuclear power plants

At any time, natural energy facilities (green) can be purchased for 10 energy dollars each

A nation can have a maximum of 2 natural energy facilities

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|  |  | **Maximum Tokens**  |
|  | **Energy needed** | **Oil** | **Nat****gas** | **Coal** | **Nuc** | **Nat** |
| **1980** | **7** | **3** | **2** | **4** | **1** | **1** |
| **1985** | **8** | **4** | **3** | **5** | **2** | **2** |
| **1990** | **8** | **5** | **4** | **6** | **3** | **3** |
| **1995** | **9** | **6** | **5** | **5** | **4** | **4** |
| **2000** | **9** | **5** | **6** | **4** | **5** | **5** |
| **2005** | **10** | **4** | **5** | **3** | **6** | **6** |
| **2010** | **10** | **3** | **4** | **2** | **6** | **6** |
| **2015** | **11** | **2** | **3** | **1** | **6** | **6** |
| **2020** | **11** | **1** | **2** | **1** | **6** | **6** |
| **2025** | **12** | **1** | **1** | **1** | **6** | **6** |
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Each nation **must** meet the energy needs

of their citizens each year by covering

the circles on that year with energy

tokens – either created by national

energy sources or purchased from

other nations or the world market

Each nation rolls each of the dice: red (oil),

black (coal), green (gas), blue

(nuclear) and yellow (natural)

If your nation has that type of energy

production facility, you may have

tokens of that color

The number of tokens your nation gets is

the **minimum** of:

 the number on the die

 the maximum tokens for that

color for that year

If you get a 6 for a red, black or green die

and do not have that production

facility, you get the well or mine – no tokens yet… production will start coming in next

turn

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|  | **World Market Price** | **World Tokens Avail** |
| **Oil** | **Nat****gas** | **Coal** | **Oil** | **Nat****gas** | **Coal** |
| **1980** | **$5** | **$5** | **$5** | **7** | **7** | **7** |
| **1985** | **$6** | **$6** | **$6** | **7** | **7** | **7** |
| **1990** | **$6** | **$6** | **$6** | **6** | **6** | **6** |
| **1995** | **$7** | **$7** | **$7** | **6** | **6** | **6** |
| **2000** | **$7** | **$7** | **$7** | **5** | **5** | **5** |
| **2005** | **$8** | **$8** | **$8** | **5** | **5** | **5** |
| **2010** | **$8** | **$8** | **$8** | **4** | **4** | **4** |
| **2015** | **$9** | **$9** | **$9** | **3** | **3** | **3** |
| **2020** | **$9** | **$9** | **$9** | **2** | **2** | **2** |
| **2025** | **$10** | **$10** | **$10** | **1** | **1** | **1** |

If excess energy is produced by a nation in one year, they can:

- keep it for later years or

- sell it to other nations at the best

 haggled price for that commodity

Any energy needed that is not generated

nationally must be bought from other

nations at a haggled price or from the

World Market Tzar at the World Market

price

Purchases through the World Market Tzar are

limited by the maximum tokens for that

year

Only oil, natural gas and coal may be

purchased through the World Market

Tzar

If a nation has inadequate funds for energy

purchases or nuclear plant or natural

energy facilities building, IOUs must be

obtained from the World Bank

If energy is not available on the World Market or from another country, your country must

implement energy conservation – get an orange token!

At the end of the game, convert any excess energy tokens to money using the

values in the World Market Price table (nuclear and natural same values as oil)

Orange tokens reduce your total by $50

Whichever country has the most money **wins!**

**Positions needed:**

Director of Oil – Distributes the red oil tokens and red oil wells and keeps track of maximum oil

tokens available

Director of Natural Gas – Distributes the green natural gas tokens and green gas wells and

keeps track of maximum natural gas tokens available

Director of Coal – Distributes the black coal tokens and black coal mines and keeps track of

maximum coal tokens available

Director of Nuclear Energy – Distributes the blue nuclear power tokens and blue nuclear plants

and keeps track of maximum nuclear tokens available

Director of Natural Energy – Distributes the yellow natural energy tokens and yellow natural

energy facilities and keeps track of maximum natural energy tokens available

Director of the International Monetary Fund - distributes and collects money for World

transactions

Director of World Bank – distributes and collects IOU currency for World transactions

World Market Tzar – negotiates the world market supply of oil, natural gas and coal

Energy Conservation Token Keeper – distributes orange tokens

**The position I held was: \_\_\_\_\_\_\_­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Our country ended with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy dollars**

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