CHANGING THE GAME FACILITATION QUESTIONS

INTRODUCE ROLES TO THE PARTICIPANTS:

GOVERNMENT

- Try to stick to the budget for short term projects, and invest in innovative long-term projects
- Create jobs and promote economic growth
- Meet European commitment goals for carbon emissions, renewable energy sources and climate change.

NGO

- Increase amounts of renewable energy sources (excluding nuclear) and reduce carbon emissions
- Ensure sustainable green transition
- Committed to global action on climate change & Greenhouse Emissions
- Maximize changes implemented and public engagement & transparency

CITIZEN

- Maintain quality of life as it is now and make minimal lifestyle changes
- Save Money, increase Prosperity
- Ensure everybody has reliable services: encourage public transportation
- Focus on population safety and health

BUSINESS

- Keep existing conventional business as usual (ex. energy sources)
- Increase overall profit and be Capitalist
- Innovate and increase efficiency

BRAINSTORM FACILITATION QUESTIONS FOR EACH GAME PHASE

1.- REGION TARGET SETTING

Think about the future, what is your vision for your region? What changes do you want to see?

1.1.- Facilitator tips & Questions

- Ensure that the team is clear on their region capabilities
- Energy system planning is about finding ways to map the various energy resources found in nature to the energy services we require for our society.
- How much energy do we need to be able to provide a certain service level? (prosperity)
- How efficiently is energy used in your region? How is this energy provided?
- What energy resources are used for what purposes?

1.2.-Roles Questions

BUSINESS

- Do you support the use of nuclear power? What is the cheapest energy solution?
- How much oil and gas should ideally be consumed in 2035?
- What should the future total energy consumption be?
- Do you want to aim for energy savings in the future?

NGO

- Do you support the use of carbon-capture and storage (CCS) technology?
- What is the cleanest energy solution?
- How large a fraction of your energy consumption (%) should come from renewables?
- What CO2 emission level (tonnes per capita per year) do you want to aim for?

GOVERNMENT

- What does the BAU2035 imply for the future climate, the security of the supply and the prosperity of your region?
- Which is the potential of your region related to Wind & Solar & Hydro & Biomass & Fossil Fuels?
- How exactly will you change the energy consumption or the CO2–emissions in the different sectors?

CITIZENS

- How large an impact do you expect on behavioural changes? Should they be personal or community based?
- What should a politician say or do in order for you to want to vote for?

2.- APPLY CHANGE CARDS TO BAU 2035

2.1.- Facilitator tips

- Introduce to each role specific objectives depending on the sector where the implementation is made.
- Ensure that participants understand the meaning of the Change Card as a policy decision that they have to debate over whether to accept or reject (Yes/No/Maybe)
- Ensure to explain to each stakeholder its objective questions for the specific sector before introducing the specific change cards for this sector. (Facilitator Role)
- The Change Card as a policy would be introduced by the Citizens role (Transport, Heating) and NGOs role (Industry, Electricity).
- There is no limit in the amount of implemented policies.
- Main focus is to achieve their "**Energy Consumption", "%Share of Renewable", "Greenhouse Emissions" and "Oil & Gas"** Region **GOALS**.
- The Budget is not a constraint in the game.
- Each time a Change Card (Policy) is accepted (YES), it will be implemented in the Lego Game by adjusting the specific effected tower. This is a Government Role Task.
- Each time a Change Card (Policy) is accepted (YES), the price (Cost) and bricks' effects (Savings- amount of non-renewable sources) will be registered using the accounting sheet (Business role task)

2.2.- Roles Questions

2.2.1-TRANSPORTATION

GOVERNMENT:

- Concerned about the costs associated with new technologies
- Concern whether the fuel is an available resource in the region.
- General well-being of citizens (job creating, reliable public services) so they get more vote

NGO:

- Generally, is in favour of modal transportation system, and higher use of renewable fuels.
- Concerned about the potential harmful implications of the implementation of new technologies (whether the fuel is an available resource, etc)

CITIZEN:

- Having lots of options for consumer choice & Lower Consumer costs
- Improve Life Quality & Ensure reliable public services.

BUSINESS:

- Cost is extremely important
- Fossil fuel and automotive companies will exhibit strong opposition to many change cards

2.2.2-INDUSTRY

GOVERNMENT:

- Concerned about the decline of industries as a consequence of certain change cards (i.e., the gasoline car industry declining as a result of investment in electric vehicles)
- Such long-term investments are extremely costly

NGO:

- Enhance local and global environment protection, climate change, GHG, health concerns.
- Lobing & Campaign

CITIZEN:

- Not in my backyard attitude
- Enhance local environment protection, health concerns.
- Job Security & traditional cultural hierarchy

BUSINESS:

- Higher cost of implementation in a short term. In a long term, Lower cost of maintenance and increase of competitiveness

2.2.3-HEATING

GOVERNMENT:

- Despite government's attempts, citizens and industries might reject the idea. Campaign success is not guaranteed.

NGO:

- Citizen awareness campaigns & Local engagement

CITIZEN:

- Energy Saving
- Are you going to change your energy consumption habits? Are you going to change your change your prosperity or commodity level?

BUSINESS:

- May affect operations of certain industries

2.2.4-ELECTRICITY CONSUMPTION

GOVERNMENT:

- Despite government attempts, citizens and industries might reject the idea. Campaign success is not guaranteed.
- Cost of infrastructural changes. Needs to subsidize infrastructure. Cost of changing the existing infrastructure.
- Develop energy monitoring and control techniques

NGO:

- Will support integration of renewable energy / green transition / minimize GGH
- Need to ensure minimal environmental damage when solutions are implemented

CITIZEN:

- Unlikely to sacrifice their own comfort. May affect consumer behaviour and cause change in habits.
- Cost savings for consumers. Awareness and education on proper usage is required
- Cost savings in efficiencies may or may not offset the initial costs.
- Lack of cheaper options might be a problem for low-income consumer

BUSINESS:

- May not want to reduce consumption to maintain their operational methods and standards.
- Lack of cheaper option might be a problem for small businesses

3.- BUILD ELECTRICITY PRODUCTION TOWER

3.1-Facilitator Tips

- Buy each region's electricity power tower. This is the budget for construct its own electricity production tower
- List of the source resources that they have in the region & Capacity Cards
- Explain the different between Uncontrollable (wind/solar) and controllable source.
- Explain the different between Peak and Base demand in the consumption tower.
- Explain the different between flexible and inflexible power plant capacity. Remind them that Nuclear has no flexible capacity.
- Ask them in General "What resources they are keen on using for their region"
- Show to the business role how to register the undertaken capacity cards (power plant sources) using the accounting sheet.
- Show to the Government role how to implement in the Lego Game the undertaken source power plant and type.
- Ensure that the tower is adjusted accordingly & everything is calculated correctly

3.2- Roles Questions

GOVERNMENT:

- Will this energy source help the region attain security and self-sufficiency?
- Can you still meet agreed-upon carbon emissions limits with this energy source?
- Is this energy source land use intensive?

NGO:

- Increase percentage of renewable electricity sources and decrease carbon emissions/environmental pollution
- Avoid additional nuclear power and try to decrease existing nuclear

CITIZEN:

- Support electricity sources that will benefit rural populations as well as urban
- Will this energy source cause health problems, inconvenience, or job loss?
- Is it safe for communities built around the power source?

BUSINESS:

- Keep as many existing conventional energy sources as possible (oil, natural gas, coal)
- Will this energy source decrease revenue and job quantity for oil companies?
- Is the high capital cost worth the long-term benefits? Is there a profit to be made?
- Is the energy source reliable in output?