



*Advocating for  
Fair, Affordable, Sustainable  
Energy Policy*

# Why HIA for New Orleans?





Where Does  
Energy  
Come  
From?



# Replacement Choices





# Natural Gas Plant



# On Shore Wind



# Off Shore Wind





# Waste to Energy



# Solar Farm





# Hybrid Solar Natural Gas



# What's Feasible for New Orleans?

- Cost
- Pollutants
- Traffic
- Accidents
- Area needed for project
- Can it meet the need?



# Cost

	<b>Proposed</b>	<b>Alt 1</b>	<b>Alt 2</b>	<b>Alt 3</b>	<b>Alt 4</b>	<b>Alt 5</b>
<b>Fuel Source</b>	<b>CT gas plant</b>	<b>On-shore Wind</b>	<b>Off-shore wind</b>	<b>Waste to energy</b>	<b>Solar Farm</b>	<b>Hybrid Solar gas plant</b>
<b>Wholesale Cost by kWh</b>	\$.04	\$.05	\$.20	\$.08	\$.07	\$.06
<b>Pass through fuel cost per kWh</b>	\$.03-\$.0765	None	None	None	None	\$.024-\$.0612

# Pollution

	Proposed	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Fuel Source	CT gas plant	On-shore Wind	Off-shore wind	Waste to energy	Solar Farm	Hybrid Solar gas plant
Criteria pollutants	NO <sub>x</sub> SO <sub>x</sub> CO CO <sub>2</sub> CH <sub>4</sub> N <sub>2</sub> O VOCs	None	None	NO <sub>x</sub> SO <sub>x</sub> CO CO <sub>2</sub> CH <sub>4</sub> N <sub>2</sub> O VOCs PM	None	NO <sub>x</sub> SO <sub>x</sub> CO CO <sub>2</sub> CH <sub>4</sub> N <sub>2</sub> O VOCs

# Traffic and Accidents

	<b>Proposed</b>	<b>Alt 1</b>	<b>Alt 2</b>	<b>Alt 3</b>	<b>Alt 4</b>	<b>Alt 5</b>
<b>Fuel Source</b>	<b>CT gas plant</b>	<b>On-shore Wind</b>	<b>Off-shore wind</b>	<b>Waste to energy</b>	<b>Solar Farm</b>	<b>Hybrid Solar gas plant</b>
<b>Traffic impact</b>	Depends on siting	Traffic decrease	No Traffic	Traffic pattern shift to industrial area	No traffic	Depends on siting
<b>Accident risk</b>	Storm/flood, combustion	Storms	Storms, salt water	Storm/flood, combustion	Storm/flood	Storm/flood, combustion

# Space and MWs

	<b>Proposed</b>	<b>Alt 1</b>	<b>Alt 2</b>	<b>Alt 3</b>	<b>Alt 4</b>	<b>Alt 5</b>
<b>Fuel Source</b>	<b>CT gas plant</b>	<b>On-shore Wind</b>	<b>Off-shore wind</b>	<b>Waste to energy</b>	<b>Solar Farm</b>	<b>Hybrid Solar gas plant</b>
<b>Area needed</b>	3-5 acres per unit	60 acres/MW	60 /MW		1 acres/MW	TBD
<b>MW Capacity Potential</b>	200MW	200 MW	200MW	26MW	200 MW	200MW



# Managing the HIA Process

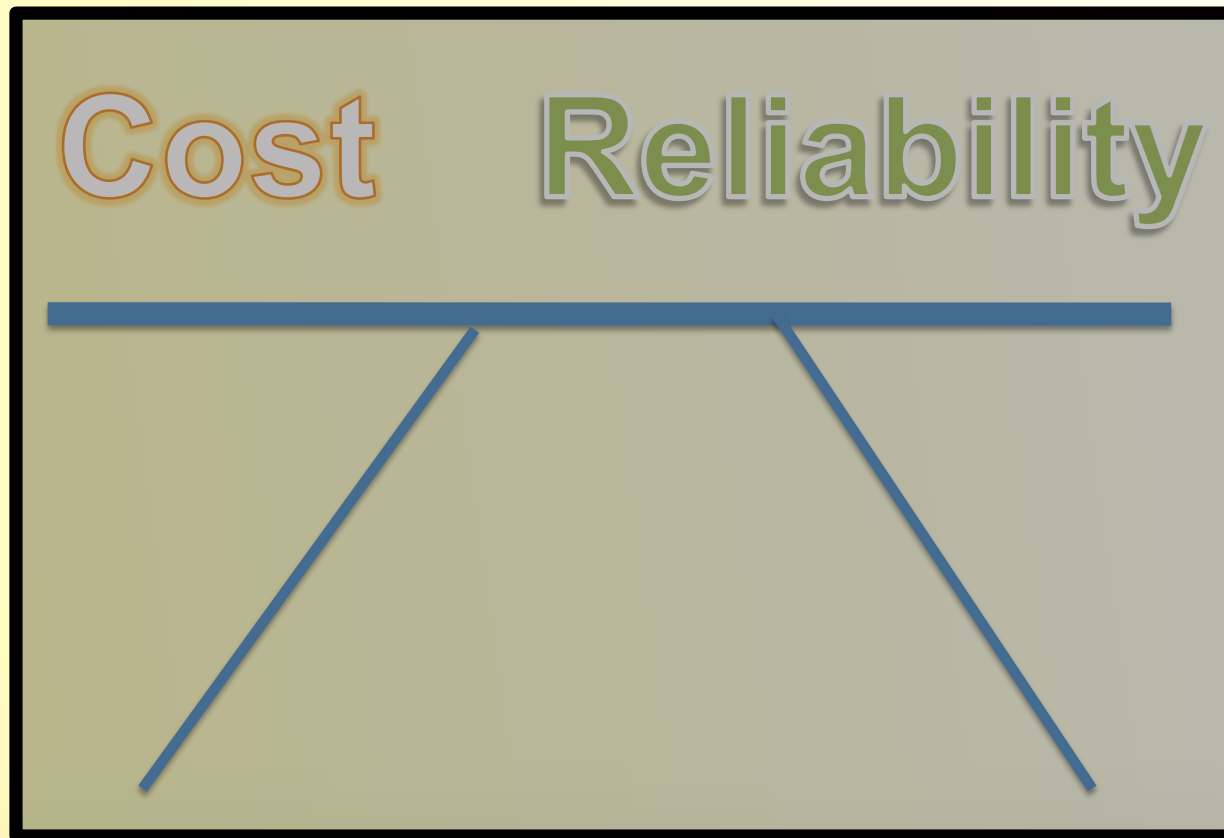
- Narrowed Scoping to Proposed project and 3 alternatives
  - ✓ Hybrid Gas Solar Plant
  - ✓ Waste to Energy
  - ✓ Solar Farm

# Benefit to Council

## Benefit to Community

- Addresses costs of energy that are not included in traditional resource planning
- Allows a space to talk about health impacts of our energy choices
- Provides new information to Council and Entergy about how to mitigate for potential health impacts of different energy choices
- Ties in with current resource planning policy
  - Integrated Resource Planning

# Historic Utility Planning: Black box process



# Integrated Resource Planning Basics

- Repeats
  - A new plan is created every 3 years
- The planning horizon is 20 years
- Fair
  - All options are put on the table
- Renewable energy and energy efficiency are also included



# Integrated Resource Planning Basics

- Transparent
  - Utility planning is a docketed proceeding
  - The need for new power plants is known far in advance
- Flexible
  - The IRP is just a plan that permits adjustment in response to changed circumstances
- Minimize total costs (total bills, not just rates)

# Collaborative Process



# Questions?





# References

- New Orleans City Council Docket No. UD-11-03 ENO Ninemile 6 generating unit. The unit nameplate value is 550MW, 20% of which is supplied to Entergy New Orleans.
- Louisiana Public Service Commission docket No. U-33244 Entergy Application to purchase Union Generating Plant. Unit nameplate value 2000MW, 200MW slated for Entergy New Orleans.
- U.S. Environmental Protection Agency eGRID 2010 data Version 1.0.
- U.S. Energy Information Administration (2014) *Annual Energy Outlook Early Release Overview*. Accessed at: [http://www.eia.gov/forecasts/aeo/er/pdf/0383er\(2014\).pdf](http://www.eia.gov/forecasts/aeo/er/pdf/0383er(2014).pdf)
- US Department of Energy (2014) *2013 Wind Technologies Market Report*. Accessed at <http://emp.lbl.gov/sites/all/files/lbnl-6809e.pdf>
- WindExchange. National Renewable Energy Lab. Louisiana Wind Potential Map. Updated 12/2014. Accessed at [http://apps2.eere.energy.gov/wind/windexchange/wind\\_resource\\_maps.asp?stateab=la](http://apps2.eere.energy.gov/wind/windexchange/wind_resource_maps.asp?stateab=la)
- Oklahoma Gas & Electric, Arkansas Public Service Commission, Docket 12-067-u-Doc
- Austin Energy Fourth Quarter and Year End Report (2013). Accessed at: <https://austinenergy.com/wps/wcm/connect/1eafeb32-410a-4d4e-85aa-4ea352aa8c5c/4thQtrFY2013Report.pdf?MOD=AJPERES>
- *ibid.*
- White, F. (2013) *A Solar Booster Shot for Natural Gas Power Plant*. Pacific Northwest National Laboratory. Accessed at: <http://www.pnnl.gov/news/release.aspx?id=981>
- World Bank. (2014) Kunming Konggang Waste Incineration Power Plant Environmental Auditing Report.
- U.S. Agency for Toxic Substances and Disease Registry. The Benningfield Group. (2009) *U.S. Multifamily Energy Efficiency Potential by 2020*, 3–9.
- Joint Center for Housing Studies of Harvard University. (2011) *America's Rental Housing: Meeting Challenges, Building on Opportunities*.