One Pagers

#1 What is the goal? – Maryland's RPS goal, GGRA goal and CARES goals are inconsistent.

#2 What is the cost? – It is necessary to compare whole systems, equal reliability.

#3 What is the risk? – Poor choices result in high cost, stakeholder rebellion, long-term emitter.

#4 Stakeholders need rational choices - The professional sequence is: Goals > Options > Choose

#5 Electricity market evolution – From energy markets to capacity markets.

#6 Professional development sequence – Set the goal → Define the options → Choose one

#7 How big is the clean energy transition? - Maryland's share is ~ $220 billion.

#8 PJM renewables Scenario – Seasonal storage is required.

#9 PJM nuclear scenario – Technology needs to evolve from Gen III to Gen IV.

#10 Lessons from other systems – Ontario is the only system to evolve from high to low CO_2

#11 Transmission is not free – Whole system comparisons need to include transmission

#12 Maryland's role and responsibility – MD needs to lead because MD is committing the $

#13 SMR value proposition – A low cost, low risk approach to introduce Gen IV

#14 PJM system transition – Coal → natural gas → nuclear

#15 PJM wind resources – System level capacity factors have averaged under 30% (low)

#16 Maryland Goals and Roles – Collaborate; solutions are regional, not State of Federal

#17 The value of solar – Questions that stakeholders should be asking about PV

#19.1 CO2 sequestration risk – How much leakage is acceptable?

#20 Reconstructing nuclear – Change the paradigm: a States owned nuclear development company

#21 Lessons from the NJ energy master plan – The system needs defined boundaries

#23 Reconstructing the nuclear power industry – We need to change the paradigm, do things differently

#24 Validate the wind models – Engineering quality models are based on physical data

#29 Sustainable nuclear power – How nuclear fission can power civilization for thousands of years

#30 The quickest path to zero greenhouse gas electricity – Summary of the professional engineering sequence

#31 The next national energy crisis – Generator performance during the ERCOT blackout

#32 LA-100 System validation – NREL models make intermittent generation appear more reliable

#33 Preserving nuclear power – Custom zero emission credits would be modest and effective

#34 Biomass for Maryland electric power – Electric power is secondary to waste management

#35 Why have a power grid – High-availability generators require little/no interconnection

(more)

#36 MD Blue Ribbon Commission – MD needs trusted electric power policy recommendations

#37 A simple grid architecture - High-availability generators require little/no interconnection

#38 Comments on DNR's 100% Study – October 1, 2021

#39 Decarbonizing CAISO – The low-cost optimum is >50% nuclear, < 50% PV+ storage

#41 Verification-calibration-validation – System models with renewable generators have not been validated

#42 Comments on DNRs 100% study – Feb 18, 2022