

Hello,

The FY21 budget should be revised to be in line with the 2019 Energy Master Plan. The 2019 EMP lays out the case for aggressively electrifying buildings, and the current FY21 budget is nothing short of a fossil fuel subsidy. I would like to start this discussion with an acknowledgement that the 2019 EMP falls very far short of taking current ICCP recommendations. To maintain a 50% chance at keeping global warming less than 1.5 degrees, we must reduce global emissions 50% off 2006 levels. According to numbers laid out in the Global Warming Response Act, this would mean we would need to be emitting less than 60 MMT CO₂e by 2030. Looking at figure ES.3 in the 80x50 plan, one can see the 2019 EMP puts us on track to be at 80 MMT CO₂e per year in 2030. In order to protect our coast line communities from extreme weather, to protect our public health, and to give our young people a chance at a livable future, we must move faster than the 2019 EMP. Nonetheless, I concede that Governor Murphy and many regulatory bodies in NJ support the 2019 EMP, and moving faster than this would be a difficult goal to achieve. Therefore, the NJCEP should be in line with the 2019 EMP.

Figure 7 on page 48 of the EMP shows the emissions from fuel sources from 2020 to 2050. One can see fossil gas starts to decline immediately, and starts falling more rapidly in 2025. This is because there is an assumption our building codes will be fully electric in 2025. We know this because on page 167 it is written “Modeling results from the Integrated Energy Plan suggest it would be most cost effective to begin constructing all-electric buildings by 2025.”

Such a dramatic shift in our building codes is a big deal, and will create lots of delays in the building sector if we don't immediately start preparing for this shift. This can lead to an increase in housing costs, and an increasing number of New Jerseyans that would be without housing. But we can prepare for this transition ahead of time. On page 167, the EMP recommends we start incentivizing electric equipment so we can "enable industry experts to become familiar with new technologies and building techniques and buy time for the technology to improve and economies of scale to drive down costs. It is expected that heat pumps will become more economically feasible in colder regions as technology continues to improve and becomes more efficient." Incentivizing the installation of fossil gas equipment is the equivalent of seeing a "bridge out" sign and stepping on the gas.

The goal of the clean energy program is to reduce costs and total energy demand. The EMP says both can be done better if we stop incentivizing fossil gas equipment. We can see total energy demand will be less on page 36 when it says, "any meaningful transition of the state's energy system to reduce energy consumption and emissions must also encompass decarbonization – primarily through electrification – of the transportation and building sectors". It says this again on page 37 with, "They reduce overall energy consumption. Electric vehicles (EVs) and electric heating systems and appliances are more efficient per unit of energy than their conventional counterparts, such as gasoline or diesel-fueled vehicles and natural gas or oil heating systems." We can see that electric equipment saves NJ ratepayers the most money on page 48-49 when the EMP says, "The Least Cost scenario relies on the state to scale up deployment of existing technologies, including energy efficiency technologies, electric vehicles, air-source heat pumps, offshore wind turbines, utility- and rooftop-scale solar photovoltaics (PV), and others." This is seen again on page 160 with, "Electrification reduces annual costs by 50% in 2050, compared to retaining gas use in buildings". Although the goal of the CEP is not to reduce emissions, there is an added benefit that electrification also reduces emissions. This can be seen on page 37 when the EMP says, "Electrified transportation and buildings support the state's emissions reductions goals".

There are many times this proposed budget goes directly against the EMP recommendations. One of the more blatant programs is the Comfort Partners Program. Goal 4.2 of the EMP is to start the transition to electrify existing oil and propane fueled buildings. On page 3 of the Comfort Partners Program Budget it is written, "Customers, who heat with fuel oil where WAP cannot reasonably provide critical services, such as repairing or replacing oil fired heating systems, will be considered for conversion to natural gas by Comfort Partners." This also goes against the goals of the CEP itself. If a customer is heating their home with oil fired heating, it is most likely because they do not have a natural gas connection to their house already. The cost of connecting a home to the natural gas grid far outweighs the cost of installing an electric heat pump, as can be seen in a 2018 Rocky Mountain Institute study on the economics of electrifying buildings. This means the proposed budget for the Comfort Partners

program is going to pay more to get even less energy savings, than otherwise could be achieved. Language in the Comfort Partners program should be changed from “replacing” water heating and HVAC systems to “electrify”. In addition, provisions should be added to ensure that all new equipment installed will be capable of demand flexibility, so as to be in line with goal 3.2.2 of the EMP.

The Warm and Cool Advantage Program provides another opportunity for more energy savings per tax dollar spent than the current budget is allowing. We know that a single heat pump can replace both a furnace and an air conditioner. This allows us to subsidize one installation, but receive the benefits as if we subsidized two. In addition to this the Warm Advantage program provides subsidies for oil boilers and propane furnaces, which directly conflicts with goal 4.2. Utility programs that will be taking over these programs should be mandated to use heat pump technology capable of demand flexibility and response.

The Residential New Construction programs are not strict enough to be worth New Jersey taxpayers money. We know from experience that Energy Star homes are only marginally better than homes built to current International Energy Conservation Code’s standard. Energy Star homes are often outdated by the next code cycle. Buying a 50+ year product that will be outdated in 3 years makes little sense. If NJCEP is going to be subsidizing construction, that construction should be to the DOE net zero or net zero ready standard. Homes subsidized under the NJCEP program should follow goal 4.2 of the EMP and be fully electric. Buildings constructed that have parking spots should have electric car chargers equipped on those spots. 90%+ of EV charging is done at home, and subsidizing more construction that is not capable of delivering that charging is no longer acceptable.

On page 21 of the TRC it is stated that the C&I EE programs “are designed to help New Jersey’s businesses use electricity and natural gas more efficiently.” Language in the C&I programs should be changed to using electricity more efficiently and electrifying fossil fuel appliances.

The two largest advantages that government subsidy programs give is the ability for contractors to learn the technology in a risk free setting and to drive costs down by allowing new technologies to reach an economy of scale. Fossil fuel equipment is already at a large enough market share to have obtained both of those benefits. As such, providing these subsidies for fossil fuel equipment has a very small benefit relative to the potential impact correctly designed government programs can have. By revising the CEP budget, we have an opportunity to usher in a new era of home energy technologies. The stakes here have never been higher. The young people of New Jersey are facing a climate crisis that is threatening their very lives. The New Jersey economy has never been more fragile after a global pandemic disrupted tourism and global shipping. We know through countless studies that energy efficiency saves money per

tonne of CO2 abated. The option of designing the CEP in a way that doesn't maximize cost and energy savings is no longer on the table.

Thank you,

Ed Mirfin
Sunrise Movement

