

	Policy ideas for Nov 12, 2019 stakeholder meeting
<b>No new fossil fuel infrastructure / Stop fossil fuels</b>	
1.1	Advocate for a federal Green New Deal to advance efforts to move Philadelphia towards a democratically controlled 100% renewable energy system by 2030 through unionized job creation that prioritizes Philadelphia's working class and communities of color (source: Alliance for a Just Phila)
1.2	Advocate that Attorney General Josh Shapiro collect state back taxes owed by the Philadelphia Energy Solutions oil refinery and enforce clean-up of toxics from Sunoco's ownership (source: Alliance for a Just Phila)
1.3	Amend Air Management Service's permitting process to adopt a Cumulative Impacts Analysis & a Health Impacts Analysis (source: Alliance for a Just Phila)
1.4	Bring city stakeholders together and turn a crisis into an opportunity -- - PGW responsible for 22% emissions - transition PGW (source: Nov '19 Philly Mag)
1.5	City Council can call for an immediate moratorium on all fossil fuel infrastructure development, starting with the denial of the proposed PGW liquefied natural gas plant. (source: Alliance for a Just Phila)
1.6	Commission & fund community-labor led studies on transitioning Philadelphia Gas Works to 100% renewable energy (source: Alliance for a Just Phila)
1.7	Commission and fund a public and participatory study to take community control of PECO - perhaps transform PGW to electric utility (source: Alliance for a Just Phila)
1.8	Commit to no new fossil fuel projects, such as Passyunk Energy Center / LNG plant (GND for Phila)
1.9	Divest from fossil fuel investments in the City Pension Fund and reinvest in a just transition from fossil fuel efforts that center labor and environmental justice communities (source: Alliance for a Just Phila)
1.1	Pass a moratorium on the development of fossil fuel infrastructure in Philadelphia (source: Alliance for a Just Phila)
1.11	Strong-arm the blown out South Philly refinery into becoming a green energy complex - 72% of toxic air emissions - green energy hub (source: Nov '19 Philly Mag)
1.12	Support a Good Neighbor Agreement between the Philadelphia Energy Solutions with surrounding neighborhoods as a precondition to the RNG Energy biogas development (source: Alliance for a Just Phila)
1.13	Transition the Philadelphia Energy Solutions oil refinery to restored public land and community-owned renewable energy projects (source: Alliance for a Just Phila)
1.14	Hold polluters accountable and collect back-taxes owed, such as PES refinery (GND for Phila)
1.15	Develop a democratically controlled 100% renewable energy system by 2030 (GND for Phila)
1.16	Divest from fossil fuels at every level, Reinvest locally via a public bank. (GND for Phila)
1.17	The City of Philadelphia shall prohibit usage of non-electric leaf blowers. (Mehdi)
<b>Planned transition to electric everything</b>	

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2.1	Ensure that new construction is fully electric, energy efficient, and fossil fuel free. (GND for Phila)
2.2	<p>Transition to renewable heating systems. (GND for Phila) Renewable heating systems would be either geothermal district heating geothermal or geothermal heat pumps. Since district heating relies on a naturally occurring near surface hot water supply, geothermal heat pumps are probably what should be emphasized here. Geothermal heat pumps can heat and cool but require some electricity (20-40% less energy used overall), ideally renewably sourced, to power the compressor, pump, emergency heat, and fan. Ideally install requires a yard or lot to bury pipes that circulate water in, but a vertical loop occupying a smaller footprint is possible but more costly. The main benefit being the ability to get off natural gas, so better air quality and more hvac jobs too. And that the technology is ready to go--this is a solution for today. (Caleb C) Renewable heating systems would be either geothermal district heating geothermal or geothermal heat pumps. Since district heating relies on a naturally occurring near surface hot water supply, geothermal heat pumps are probably what should be emphasized here. Geothermal heat pumps can heat and cool but require some electricity (20-40% less energy used overall), ideally renewably sourced, to power the compressor, pump, emergency heat, and fan. Ideally install requires a yard or lot to bury pipes that circulate water in, but a vertical loop occupying a smaller footprint is possible but more costly. The main benefit being the ability to get off natural gas, so better air quality and more hvac jobs too. And that the technology is ready to go--this is a solution for today. (Caleb C) My limited knowledge is that geothermal is difficult and expensive in urban settings. You need large open areas for horizontal runs for shallow GSHP (ground-source heat pumps) or you have to drill very deep to get the same amount of heat transferred and that's expensive. Air-source heat pumps are not nearly as efficient but they're still efficient (and electric) and much cheaper. I'm sure the price has come down but in 2010 we were quoted \$60,000 for a GSHP for our house. (Brent G)</p>
2.3	Incentivize electrification of everything -- Offer tax credits or rebates for purchasing efficient new electric appliances. (GND for Phila)
2.4	Make the tax abatement green - Dave - encourage LEED Zero - tax reduction based on certification. (source: Nov '19 Philly Mag)
2.5	Set up variable time-of-use billing rates to encourage electricity use at off-peak time, such as night-time. (GND for Phila)
2.6	All newly built public and publicly subsidized low-income housing shall only use clean renewable energy sources by 2030. (Ready for 100)
<b>Energy Efficient Buildings</b>	
3.1	Incentivize energy efficiency; e.g. expand on current Smart A/C Saver program. (GND for Phila)
3.2	Invest in energy efficiency and buildings apprentice programs and expand basic service repair projects to support energy efficiency and decrease energy burden in communities (source: Alliance for a Just Phila)

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3.3	The City of Philadelphia shall develop a program to provide incentives for landlords to weatherize/create efficiency for their low-income properties. (Ready for 100)
3.4	Improve and expand building energy monitoring using utility bill management software, benchmarking, metering, control system infrastructure, communication with building operators, and other integrated approaches for all City buildings with that capacity. (Mehdi)
3.5	Enable remote operations and networking of HVAC building controls for all City buildings with that capacity. (Mehdi)
3.6	The City of Philadelphia shall require all new high-rise construction to enable remote operations and networking of HVAC building controls. (Mehdi)
EE1	Energy efficiency shall be used to reach a goal of 50% reduction in energy usage of existing buildings citywide by 2050, compared to 2006. (Ready for 100)
EE2	Priority shall be given to energy efficiency measures including weatherization, cogeneration, district heating and cooling, decentralized electricity generation and smart grids/microgrids, the use of industrial waste heat, building controls, automated lighting, solar-powered hot water heaters and programs that create an energy saving culture in the City of Philadelphia. (Ready for 100)
EE3	The City of Philadelphia shall continue to adopt updated ICC building codes. (Ready for 100)
NYC	Big building efficiency to reduce emissions 40% by 2030, 80% by 2050 (NYC Climate Mobilization Act)
Clean & renewable energy sources	
4.1	Incentivize rooftop solar (GND for Phila)
4.2	Install solar on every viable school roof, library, and recreation center (GND for Phila)
4.3	Install geothermal energy systems beneath our streets (GND for Phila)
4.4	Demand that the City invest in and prioritize community-owned renewable energy projects by Black, Brown, and poor communities in its energy procurement portfolio. (source: Alliance for a Just Phila)
4.5	Advocate that any Rebuild projects incorporate solar and microgrids to provide emergency power in times of storms (source: Alliance for a Just Phila)
4.6	Ready public spaces as cooling centers and as demonstration center (GND for Phila)
4.7	The City shall prioritize community-based development of renewable energy infrastructure and will make investments in community facing organizations to build capacity to lead such development. (Ready for 100)
4.8	Utilize geothermal exchange and solar hot water systems for cost-effective implementation at City municipal facilities that fit these technologies. Eg police, library, rec center (Mehdi)
4.9	Simplify the Power Purchase Agreement process for solar PV systems on the smaller rooftops. (Mehdi)

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4.1	Simplify and shorten the process to obtain permits and permission to interconnect for solar PV systems on rooftops. (Mehdi)
<b>Municipal Buildings</b>	
M1.1	Municipally owned or managed facilities, to include the airport and water department, shall reduce their energy use in the built environment by 20% by 2030. (Ready for 100) "I recommend breaking it down into phases. E.g. 30% 2021, 50% 2025 80% 2028 & 100% 2030" (Mehdi) "I think the PPA gets municipal buildings to 22% by 2021, so perhaps 40% 2024, 60% 2026, 80% 2018 & 100% 2030." (Dave)
M1.2	Municipally owned or managed facilities, to include the airport and water department, shall generate or purchase electricity from 100% renewable sources by 2030. (Ready for 100)
M2	The City shall prioritize direct investments of renewable resources over the purchase of RECs, any RECs purchased must be from projects built during or after 2018 and within the PJM market, and the City shall reduce its reliance on RECs during the transition to 100 percent renewable resources over time. (Ready for 100) "How is the city reliant on RECs?" (Mehdi)
M3	The City of Philadelphia avoid any new commitments to ownership of or long-term contracts for electricity derived from fossil-fuel or nuclear power plants. (Mehdi)
MB1	Utilize geothermal exchange and solar hot water systems for cost-effective implementation at City municipal facilities that fit these technologies. Eg police, library, rec center (Mehdi)
<b>Buildings - privately owned</b>	
	end ff in private homes - no new gas lines - efficient appliances (Emily)
<b>Waste</b>	
5.1	Embrace a Zero Waste by 2035 goal (GND for Phila)
5.2	Eliminate single-use plastics (GND for Phila)
5.3	Incentivize backyard and neighborhood-scale composting (GND for Phila)
5.4	Close the loop locally with collected recyclables (GND for Phila) Who knows rules re: Philly Commercial recycling requirements? Looks like all businesses, including restaurants are required to recycle ( <a href="https://cleanphl.org/commercialwastereport/">https://cleanphl.org/commercialwastereport/</a> ), that's not what I've seen. This should be required if it isn't and facilitated and/or policed if it is. (Brent G)

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5.5	Invest in waste reduction, including supporting community-led composting enterprises and municipal composting and requiring all city agencies and departments to compost (source: Alliance for a Just Phila) Philly just announced first city-wide composting facility; <a href="https://whyy.org/articles/philly-is-building-the-first-urban-composting-facility-in-the-state-and-its-opening-soon/">https://whyy.org/articles/philly-is-building-the-first-urban-composting-facility-in-the-state-and-its-opening-soon/</a> . Good news, but not enough, need to pressure them to evaluate quickly and start pilot for larger roll-out. (Brent G)
5.6	Implement local and sustainable purchasing practices by the City (GND for Phila)
	Zero Waste Boston to divert 90% of waste from landfills and combustors. Diversion includes source decution, reuse, repair, recycling, and biological treatment of organics.
Transportation	
6.1	Increase transit ridership with fair fares -- free transit for kids under 12, free transfers on SEPTA (GND for Phila, 5th Sq)
6.2	Encourage active transportation such as walking and cycling (GND for Phila)
6.3	Implement Vision Zero - no pedestrian or cyclist fatalities by automobiles (GND for Phila)
6.4	Promote car sharing (GND for Phila)
6.5	Support reverse-commuting by carpool, vanpool, and public transit (GND for Phila)
6.6	Discourage fossil-fuel powered vehicles, including automobiles, especially in Center City; e.g. Open Streets PHL all the time (GND for Phila)
6.7	Ticket idlers (GND for Phila)
6.8	Electrify Transportation (GND for Phila)
6.81	Zero-emission all-electric buses by 2032 (GND for Phila)
6.82	Electrify city fleet, school buses, transit fleets, and in-city delivery trucks (GND for Phila)
6.83	Invest in public curbside electric vehicle (EV) charging (GND for Phila)
6.84	Require EV charging stations in parking lots and garages (GND for Phila) This is a good idea but not enough. Residents with EV's need a strategy from the city for charging. It's not sustainable to pay for parking in a garage plus charge fee. Why are we so allergic to innovation or stealing some other city's innovation? One example; <a href="https://www.curbed.com/2017/6/22/15855130/ubitricity-electric-car-charging-lamp-posts">https://www.curbed.com/2017/6/22/15855130/ubitricity-electric-car-charging-lamp-posts</a> . (Brent G)
6.85	Make it easier to own an electric car - 386,000 drive to work - 135 public plugs - more public EV chargers (source: Nov '19 Philly Mag)

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6.86	Advocate that SEPTA prioritize the procurement of electric buses in low-income, EJ communities (source: Alliance for a Just Phila)
6.9	Tax truck deliveries for local and distant locations (GND for Phila)
6.10	Set up variable vehicle-to-grid billing rates to encourage electric vehicle charging at off-peak times. (GND for Phila)
6.11	Charge people to drive in the City. And use the money to make SEPTA better. Perhaps free? 24% of emissions - congestion fee (source: Nov '19 Philly Mag)
6.12	Free public transportation for low-income people and students, including ending the transfer fare. (source: Alliance for a Just Phila) / free transit for all (Meenal)
6.13	Increase access to all transportation for people using wheelchairs, taxis, ride-sharing, SEPTA, hotel vans and all vans that travel to and from the airport. (source: Alliance for a Just Phila)
6.14	Fund Vision Zero for bicycle safety (source: Alliance for a Just Phila)
T1	The City of Philadelphia shall transition their vehicles to zero carbon emission by 2035. (Ready for 100)
T1.2	Transition City fleet to zero-emissions by 2035; starting 2020, replace all highly used vehicles; starting 2023, replace all vehicles with EVs (Ready for 100)
T2	SEPTA shall transition to a fleet of zero carbon emission vehicles by 2035, with first priority given to routes where the greatest air pollution levels exist within the City of Philadelphia in order to reduce emissions in areas with high asthma rates and health vulnerabilities. (Ready for 100)
T3	City Council shall create incentives for all motor vehicles (ie - city, commercial, and personal) operating in the City of Philadelphia to have zero carbon emissions by 2050. (Ready for 100) "I think this too far out. Perhaps 80% by 2030." -Mehdi
T4	The city shall post signage about the vehicle anti-idling law throughout Philadelphia and encourage reporting of gas and diesel vehicle idling, especially delivery trucks & buses (Ready for 100)
T5	All commercial and residential parking lots shall be required to provide parking spaces with Electric Vehicle (EV) charging docks. A portion of these spaces shall be dedicated to shared vehicles and some to private vehicles. (Ready for 100)
T6	A portion of on-street parking spaces shall have EV charging facilities. (Ready for 100) "We should associate it with a date." -Mehdi
T7	Solar canopies shall be installed on large municipal-run parking lots in areas that receive adequate sunlight. (Ready for 100)
T8	By 2050 all streets currently supporting 2 lanes for traffic shall have one protected lane for bicycles. (Ready for 100)
	The City Council shall create incentives for car-sharing and taxi cabs to switch to EVs. (Mehdi) "what have other cities done? zero interest loans? how to keep from blocking bus lanes, bicycle lanes?" -Meenal

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	The City of Philadelphia shall place an immediate moratorium on construction of drive-thru for fast food restaurants to prevent cars from idling. (Mehdi)
	One shared trash compactor and pick-up location is saving 30 trash truck trips a week (four per day) just for one city block. Fewer trash truck trips = less congestion, also less emissions. This is another recommendation from the Halfway There report which talks about a 46% emissions reduction from transportation by transitioning to electric vehicles, driving less, flying less and moving our stuff [including trash] around smarter.(per Phila 3.0 How to cut traffic congestion by fixing trash policy)
	more low-car multi-family housing close to public transit (5th Square)
	eliminate mandatory minimum parking requirements (5th Square)
<b>Labor</b>	
L1	Workers who have been downsized from fossil fuel industries should be supported with transition benefits, job training, and a just transition to new jobs, especially in energy efficiency and renewable energy. (Ready for 100)
L2	Renewable energy training and educational programs within the school district and community college shall be supported by City Council. (Ready for 100)
	What Philly can learn from Copenhagen (OTIS) / <a href="https://why.org/articles/what-philly-can-learn-from-copenhagens-response-to-the-climate-crisis/">https://why.org/articles/what-philly-can-learn-from-copenhagens-response-to-the-climate-crisis/</a>
	Local workers when hiring for union jobs, reflecting city demographics
	<b>Agriculture / Food / Land Use / Green Spaces / Water</b>
7.1	Encourage local agriculture, especially urban farms (GND for Phila)
7.2	Draw down greenhouse gases with large-scale shade-tree planting combined with tree care, street-sweeping, and litter collection. Think of trees as infrastructure. (GND for Phila)
7.3	Plant more trees in low-income neighborhoods (source: Nov '19 Philly Mag)
7.4	City agencies must purchase food that is nutritious, sustainably sourced, values work-force, and locally sourced agriculture. To do this we need the city to divest from unhealthy, unsustainably sourced, labor exploiting, corporate food (source: Alliance for a Just Phila)
7.5	Prioritize black & brown growers when investing in support & infrastructure for growing Good Food AND when purchasing Good Food (source: Alliance for a Just Phila)
	bring in PennFuture's asks about green stormwater / <a href="https://www.pennfuture.org/keep-philly-green">https://www.pennfuture.org/keep-philly-green</a>
	Increase reliance on non-meat foods (Judy), reduce beef consumption by 30% (Pittsburgh)

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GS2	Maintain / increase urban canopy & tree protection (Atlanta)
GS3	Increase urban ag / vertical farming practices (Atlanta)
GS4	Reduce food deserts w mobile markets (Atlanta)
GS5	Quantify trees and carbon sequestration (Atlanta)
	Increase food donation systems (Pittsburgh)
	Cooking education (Pittsburgh)
	Garden donation programs (Pittsburgh)
	Community Composting (Pittsburgh)
	Create cottage food laws (Pittsburgh)
Economic Development & Innovation	
ED1	The City of Philadelphia shall encourage <b>businesses</b> to consider their environmental, social and economic impact upon the residents, environment and global community. (Ready for 100)
ED2	The City of Philadelphia shall support clean energy <b>innovators</b> through the processes of business and technology research, incubation, acceleration, and demonstration by grants and academic partnerships. (Ready for 100)
ED3	The City of Philadelphia shall increase green developer <b>tax credits</b> . (Ready for 100)
ED4	The City of Philadelphia shall review and revise existing zoning ordinances with the aim of prioritizing green development in underutilized areas and properties. (Ready for 100)
ED5	The City of Philadelphia shall engage in educating businesses on the business case for renewable energy opportunities, including on-site generation, renewable energy sourcing and energy efficiency measures, and provide support for removing financial and technical barriers in new technologies, prioritizing small and local businesses. (Ready for 100)
ED6	The City of Philadelphia shall hold businesses responsible for the energy efficiency and energy sourcing of their facilities requiring new construction to meet all city code. (Ready for 100)
ED7	The City Council shall prioritize zoning waivers of new development contracts to those companies who prioritize energy efficiency (above and beyond what is required by code), clean renewable sources of energy, and toxin-free materials in their construction and residential/retail occupancies. These waivers should also encourage engagement with the local community in which companies seek to develop throughout their process, prioritizing any available retail units to new local businesses in the community. (Ready for 100)

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Equity	
E1	The City of Philadelphia shall create structured mechanisms to include low-income citizens in the benefits to be derived from the energy transition, including creating quality careers in weatherization, energy efficiency, and solar power, adhering to local source hiring, a just transition for workers displaced by fossil fuel reduction, equitable access through ownership and benefits to new opportunity for historically marginalized communities, and affordable clean energy options. (Ready for 100)
E2	All newly built public and publicly subsidized low-income housing shall only use clean renewable energy sources by 2030. (Ready for 100)
E3	The City Council shall create a diverse and representative advisory committee to serve as an accessible intermediary between the above-mentioned communities first impacted by climate change and City Council. The advisory committee shall work to ensure that all members of the communities have an opportunity to participate in the planning and transition process. This process shall be transparent and open, with frequent and timely opportunities for public comment, review of draft materials, and collaboration. The advisory committee shall emphasize engagement with community organizations, such as Community Development Corporations, Neighborhood Advisory Committees, and nonprofits that serve vulnerable communities. (Ready for 100)
E4	The City Council shall mandate that the resources to train and hire people in any renewable energy jobs in Philadelphia during the transition prioritize those from the aforementioned communities, and by 2020 set robust and measurable goals and metrics to track progress. This includes existing municipal and private programs that provide high-school and adult job training (ie - The Philadelphia Energy Campaign, Solarize Philly), the city's Rebuild program, green union work, and veteran/housing insecure/formerly incarcerated re-entry job training (RWA Philadelphia and the Re-Entry Office of the Mayor). (Ready for 100) "This is an example by which we are making the success of transitioning to clean energy to be contingent on something else that may delay the progress." Mehdi
E5	The City Council shall create a "minimum livability code," (the "Code") prioritizing increase in the resilience of communities most vulnerable to the impacts of climate change by creating climate-ready infrastructure in those communities, as well as instituting requirements for property resilience, efficiency, and weatherization. The Code shall also include, but is not limited to, climate-related emergency planning, flood prevention infrastructure, requiring weather-resilient building materials in municipal and new city development contracts, white roofs, green roofs, increased tree cover, increased green spaces, more protected bike lanes, solar canopies, and disincentivizing fossil fuel auto transportation. (Ready for 100)
E6	The City of Philadelphia shall develop a program to provide incentives for landlords to weatherize/create efficiency for their low-income properties. (Ready for 100) Begin with incentive, then make it law. (NAGP)



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U7	In construction begun after 2020, all appliances must be powered by electricity or other sustainable energy system. Heating and cooling systems must be powered by non-fossil fuel systems in all new construction. After 2020, upgrades in residential and commercial HVAC and appliances shall be electric or powered by other sustainable energy source. Purpose: to begin to ween off gas from PGW (Ready for 100) Move to Electrification or PGW section. (Meenal) The Labour Party in the UK is proposing a massive transition to heat pumps and solar thermal, starting with low income households; <a href="https://www.theguardian.com/global/2019/nov/02/labour-scheme-homes-energy-efficiency">https://www.theguardian.com/global/2019/nov/02/labour-scheme-homes-energy-efficiency</a> . There will need to be incentives (on-bill financing?) to make this happen. (Brent G)
	<b>Funding</b>
	Charge large nonprofit orgs property use fee PILOT (Neighbors Against the Gas Plants)
	Public bank, green bank, divestment of City pension funds, green mutual funds
	Paying for the needed transition
	<b>Adaptation</b>
	Chicago has a section just for this