



In this feature, we present **Jonathan Barcant** from Trinidad & Tobago, Nominee, Energy Personality Award

In 2017, as part of CARICOM Energy Month, the CARICOM Secretariat organised three regional competitions:

- the **Energy Personality Award**, to recognize someone who has made, or is making, an exceptional contribution to a sustainable energy future in the Region;
- the **Young Energy Artist Competition**, for children aged 12 and under;
- the **Energy Month Youth Essay Competition**, for students in three categories: tertiary (ages 16-30), secondary (Forms 1-3/ Grade 7-9) and secondary (Forms 4-6/ Grade 10-13).

By profession a civil engineer specialised in soils, water and the environment, Jonathan Barcant has become a moving force in changing Trinidad and Tobago's energy landscape. Realising that Aristotle's maxim of "one swallow doesn't a summer make", he cofounded and is the managing director of an organisation, IAMovement, which has become one of the country's leading civil society voices on climate change. Since starting out in 2014 as one of a few "swallows", Mr Barcant has sparked a wide conversation around climate change, renewable energies and energy efficiency in the two-island state, taking the message of the need to transition to schools, businesses and ministry officials. In the process, his desire to help his country combat poverty while also nurturing the planet has become a passionate message of hope.

For over a century, oil and gas extraction has been the backbone of Trinidad and Tobago's economy, a source of both employment for its citizens and of foreign exchange to finance its policies. However, in 2014, a group of young professionals came together and created **IAMovement**, an organisation that calls for the evolution of this vision (namely through a public discussion about the prevailing economic model's sustainability) and, facts and figures for proposals in hand, suggests refocusing the economy on alternative energy sources as a means of generating savings, creating jobs and reallocating existing fossil-fuel reserves to export-oriented industries.

Despite the odds being apparently stacked against it, in a very short period of time IAMovement has played an important role in creating a ripple effect throughout society: the 150 participants in 2014's People's Climate March in Port of Spain swelled to 450 people in the 2015 Climate March, while the initial heart-shape formed at its closure as a symbol of togetherness led to the **#Heart4Climate** campaign in 2017 - and a total of fifteen individual heart formations throughout the two-island state, translating how the movement is gaining momentum.

As Mr Barcant points out *“Trinidad & Tobago is a nation which has built itself on oil and gas, and the population at large has come to see it is our lifeline [so that there is] a certain subconscious hesitancy and even distrust towards non-conventional and renewable energies”*. Through his work at IAMovement, he has been slowly but methodically chipping away at the culturally ingrained lack of interest in alternative non-polluting sources of energy, by addressing the unvoiced fears of the general population regarding their economic and social fallout and proving why they are unfounded.



Bringing people together: the 2015 Climate March in Port of Spain organised by IAMovement

The interest and support for the People’s Climate Marches led IAMovement to produce a local climate documentary called *“Small Change”* in 2016, directed by Dylan Quesnel, another cofounder, which itself became a powerful tool of communication. Then, in 2017, a nationwide project called *“Climate Talk”* was launched, pursuing the effort to take the conversation about renewable energy, energy efficiency and energy security in the future to the people and inspiring an ever greater number to adopt a different mentality. This effort was crowned by the invitation tendered to the organisation to participate in Trinidad and Tobago’s first Clean Energy Conference organised in 2017 by the Energy Chamber, the trade association for the energy industry representing close to 400 member companies, in collaboration with the European Union, an invitation that has been renewed for the 2018 event. According to Mr Barcant, the secret of IAMovement’s success is that it took a committed approach to bringing the conversation to the people of Trinidad and Tobago instead of solely to higher levels, generating public support through awareness and education to create the popular pressure needed to drive political will to transition to clean and sustainable energy. Below are the responses Mr Barcant offered to our questions about his endeavours to date and his hopes for the future:

1. *Can you briefly describe your own experience in the energy sector? What motivated you in the first place? What challenges have you encountered? What have been some of the highlights of your career and involvement in the sector?*

My career began in the extractive industries and not directly in energy, when I worked for several years abroad with a large Canadian engineering firm on mining projects in Northern Canada, Greenland and then Panama – but I witnessed some very destructive and unsustainable situations, where best practices were not being respected and that led me to redirect my career towards environmental conservation. I then returned home to Trinidad and Tobago and, very soon after, I was moved by certain realities here, especially as I discovered the unsustainability of our own energy sector in T&T. One of the biggest things that hit me in this area was the fact that our annual energy subsidy costs were being footed by our national budget, which was about USD 1 billion annually in 2014 and 2015. Although this has dropped along with the market price of fossil fuels, today it still represents great losses to the people of T&T, in the hundreds of millions of US dollars every year.

When I first learned about our subsidy costs, I carried out a baseline conceptual-level study to look at the feasibility of Renewable Energies in T&T. I found that, given the energy consumption of our smaller island Tobago (which is about 80MW) and the average cost of utility-scale

renewable-energy solar and wind projects internationally being about USD 2 million per MW (in Canada and Chile), this meant **we could theoretically make Tobago 100% renewable for just one fifth (or 20%) of what is spent annually with our subsidy**. I also looked at T&T as a whole, and found that one year of the annual subsidy cost alone could cover costs for us to go 25%



The 2014 conceptual-level study pointed to the benefits of being able to export more oil and use the proceeds to finance the initial facilities for wind and solar-generated electricity produced locally

renewable as a nation. While there are many factors to consider for any such transition to take place (such as the existing power supplies to be phased out), for me these statistics were telling enough to build a conversation, where the government of T&T couldn't say any longer that Renewable Energy (and Energy Efficiency) are impractical or unfeasible – because in fact it now makes economic sense, whether you calculate the payback period in terms of annual subsidy savings resulting from such projects, or the long-term savings of reducing the total natural gas consumption by harvesting alternative energy.

These numbers, and thinking about the future of our country in terms of energy security, economic benefits and what it could mean for our children and grandchildren if we don't invest in a more energy-secure future as of now, before our energy resources run out, were all enough reason for me to commit to the cause of promoting energy sustainability and start working alongside other passionate young people in the non-governmental organisation IAMovement, to drive this energy-related conversation over the years, starting with the first Port of Spain People's Climate March that we hosted in September 2014.

2. *What are, in your view, the main obstacles to the adoption and use of sustainable sources of energy in Trinidad and Tobago and the rest of the region? And the opportunities? How difficult is it to promote renewable energy in a country that is a large producer of oil and gas?*

Trinidad and Tobago is a bit unique compared to most of the region's countries with respect to energy, but there are also many commonalities. The biggest opportunity throughout is that implementation of Energy Efficiency (EE) and Renewable Energy (RE) projects can yield massive financial savings, even though the types of projects and approaches may need to be different. In most of the region, the population can directly access the benefits of EE and RE at the household and commercial levels, because everyone pays for the hefty true cost of energy. This means that, by reducing consumption through energy efficiency upgrades and renewable energy projects, measurable annual savings can be made. Utility-scale projects led by government also make similar economic sense. Like anything new, to help implementation become more widespread in the region, what is often needed is the growth of education and awareness about the true economic opportunities for savings, coupled with the availability of solutions, via private sector and/or governmental and development-assisted initiatives.

In T&T, the opportunities for savings are equally present – however, it is far more difficult for businesses and individuals to access these directly, given the highly subsidized public energy cost which gives little incentive to transition. This is because the payback period is much longer, with savings from EE and RE initiatives being much lower when compared to the rest of the Caribbean region. **The true economic losses due to the absence of sustainable energy transition are just as real, however, or arguably even greater**, since artificially-low energy costs have led to a culture of much greater wastage, with T&T being ranked the #1 most energy inefficient country in the world by *The Economist* in 2017, based on GDP per unit of energy used. However, the losses are felt solely in the pockets of the government (through the annual subsidy in the nation’s budget) and not directly on individual electricity bills, meaning that the only way T&T will ever be able to transition fully to sustainable EE and RE initiatives is with full government involvement and commitment.

This may seem more difficult, because governments can often be slower to move than the market, however the truth is that this also represents an opportunity. Given that losses are effectively felt in one spot, that of the national budget, by educating and raising awareness on these facts, and by working alongside technocrats and leaders in all the major national stakeholder organisations, it is inevitable that the message and gravity of the economic and social losses will eventually get the deserved attention of those who have the power to decide and drive the transition.

During our early efforts in T&T, it was difficult to start the discussion of sustainable and renewable energies at the public level, quite simply because we are a fossil-fuel nation and so, in some subconscious part of our collective national psyche, most of the population tended to think that aligning with renewable energies is in direct contradiction to the country’s interest (and many individuals’ livelihoods) – which caused a general “tuning out” and unwillingness to participate in the discussion of renewable energy and climate change. However, from the moment we were able to transition the discussion to a purely economic one, whereby it was made clear that EE and RE in T&T will have no impact on anyone’s jobs or livelihood in the energy sector and could even enhance or complement them – the cultural response also began to transition towards one of interest and then avid support. **We have been able to make it clear that a switch to RE and EE can even help support our existing energy sector**, whereby, instead of consuming our natural gas locally, it can be sold abroad raising foreign revenues and aiding with Forex issues, or it can be channelled to our important petrochemical sector, as that industry is now suffering a natural gas shortage and methanol plants are being forced to close, resulting in great losses of jobs. Instead of burning unsustainable amounts of natural gas locally, if we make our power plants more efficient or invest in renewables, the gas saved can be converted into value-added petrochemical products supporting a whole other aspect of the industry, and increasing our national income, instead of burning our resources away inefficiently.



By focusing the discussion on these arguments nearly every single person and organisation we have had the chance to communicate with has commented that their whole thinking on the matter has changed (if they weren’t already aware of the facts). Thus, once the right platforms and

partnerships can aid in scaling the conversation, we are confident that the government will soon recognise the value of aligning with – and campaigning on – a transition to sustainable energy.

3. *Your organisation is non-governmental and is involved in advocacy, communications and community mobilisation. The energy sector is usually associated with governments, public utility companies and the private sector. What do you see as the role and the added value of civil society?*

I believe that civil society has a crucial role to play in helping to drive the transitional changes needed in all areas of a country's operations. At the end of the day, the private sector and the government respond to what the population truly wants – at the consumer level, in the terms of products and services being made available on the market, and at the voter's booth, where governments will literally build their campaign promises based on what the people are asking for.

In many other countries where citizens pay the true cost of energy directly, raising awareness of the benefits of transitioning to renewables (economic as well as environmental) can raise public demand, driving private businesses to meet market needs – and also putting pressure on government to facilitate the transition and even consider utility-scale upgrades and RE projects.

In Trinidad and Tobago, however, where the public cost of energy is, in most cases, less than 20% that of the rest of the region, it is very difficult, if not impossible, to make the transition through private and market approaches alone; even after raising awareness, and the public who wish to transition to clean energy struggle to do so directly, given the lack of personal economic incentive. Meanwhile, at the national scale, the economic incentive is tremendous. And this is arguably where the role of civil society organisations is equally – or even more – important.

While our organisation does not work directly to connect power lines or write new policies, we are part of a growing population of persons who are becoming more educated and aware of the great losses being faced by our country annually – and also the limited timescale of opportunities we may still have to make a comfortable transition to a more economically sensible and secure energy model. At all of our events we say that *“there are two things that cause those in power to move and make decisions. The first is economics; the dollars and cents of the situation – and the second is the people, in the form of votes”*.



Taking the message to the pupils of Fatima College, a boys-only secondary school in Port of Spain

The argument for a swift transition towards energy-efficient and renewable energy projects locally now makes “millions of dollars of sense”, and all those who are educated on the facts can see it. So we firmly believe that if enough of the population becomes educated and aware of its benefits, those in power will eventually be compelled to shift their attention to the issue as well.

We are in a time now of rapidly changing technology and methods of communication, and a lot is taking place digitally and online. IAMovement has thus coupled its on-the-ground actions and events (like the People's Climate Marches) with the production of beautifully shot, emotionally

captivating and “fact-communicating” videos and a film, and it has helped take these across the country through nationwide screening and conversation programs, in partnership with various organisations, including schools, corporate entities, foreign embassies – and government bodies, such as the Ministry of Energy. Over the last few years we have seen the following and interest in our work among all these partners, the media, and the public grow exponentially, both on- and off-line, because everyone can understand and relate to matters such as economic savings and opportunities, job creation, etc., even if environmental arguments aren’t their first priorities.

The reality is that the IAMovement’s work (like that of other civil society organisations also making headway in the same direction across T&T and the Caribbean) often can’t be done by individuals working alone, nor by the private sector, or even progressive persons in public positions. While the job could never be done by any one person on their own, private sector entities often cannot create the partnerships that Civil Society Organizations (CSO) can for matters such as trust and the questioning of private agendas. CSOs that are committed to this cause and taking the right approach are therefore in a very unique position, where they can effectively convene stakeholders and partners much more quickly and innovatively, in ways that could not be done otherwise.

Another, last example of our current work is that IAMovement began a partnership in 2017 called “Climate Talk” with the Canadian High Commission and the German Embassy, which saw 40+ events completed throughout the year in schools, organisations and public spaces and many



Addressing the first Clean Energy Conference co-organised by the Energy Chamber of Trinidad and Tobago and the EU in 2017

relationships made. This has led us now in 2018 to partnering with the National Gas Company of Trinidad & Tobago (NGC), the Energy Chamber of T&T, and the National Energy Corporation of T&T, to produce an infographic video series called “RE-THINKING ENERGY”, which will make many of the facts and figures shared earlier completely digestible to the lay person. It will consist of a three-part video series focusing on: (1) T&T’s annual opportunity cost losses, (2) our subsidy and how it compares to our Caribbean neighbours, and (3) the proposed solutions contained in the Sustainable Energy

Roadmap 2021-2030 defined by the European Union and our Ministry of Energy & Energy Industries (MEEI). We will also be taking this conversation across T&T working with NGC in “Climate Talk 2018”, which has just begun and will feature 30 events throughout the year.

These types of partnerships to help spread vital information needed to drive political would be impossible to achieve by any entity other than a civil society organisation. We can thus appreciate that the role civil society has to play in the collective transition and drive to a sustainable energy future is a critical one, and should not be underestimated.

4. Based on your experience, what would be your main advice to policy-makers to accelerate the transition to sustainable energy?

I would advise policy makers to truly take the time – not an exorbitant amount, but to give *enough* time – to sit with the technical leads in their own organisations, including the Ministry of Energy, NGC and the National Energy Corporation, or with other educated organisations from civil society

and/or the private sector, to understand the true facts and figures in terms of the current energy situation in T&T and what our opportunities are. **The information has now been clearly laid out by lead persons in all sectors, and is incontrovertible in terms of the social and economic benefits that could result from implementing specific energy-efficiency upgrades and renewable energy projects**, locally, to reduce our fossil fuel consumption and instead make those resources available for other uses.

T&T is currently facing a gas shortage. Whereas in 2010 we were producing 4.3 billion standard cubic feet per day (scfd) of gas, there has been a steady decline since, so that this now stands at approximately 3.3 billion scfd. In 2017, Methanol Holdings Trinidad Ltd (MHTL) faced plant closures and in 2018 Caribbean Nitrogen Company's (CNC) ammonia plant closed, collectively causing the loss of hundreds of jobs. At the same time, the shortfall in the production of these valuable products for export also means a loss of valuable foreign revenue for T&T. It is therefore in the greatest public interest to reduce natural gas consumption locally, wherever we can, so as to make it available to the petrochemical sector especially.

A range of projects has been studied in depth and put forward in T&T's Sustainable Energy Roadmap 2021–2030, which could aid significantly with the gas crisis. One such example is a proposed upgrade to our Point Lisas power plant, from single-cycle to combined cycle, which would cost an estimated USD 80 million to realise – but which would then save approximately USD 45 million of gas, annually! This means the payback period on the upgrade would be less than two years, with perpetual ongoing annual savings of nearly USD 50 million, at the same time ensuring that this extra gas could feed other valuable job creating and foreign revenue generating petrochemical industries. Similarly, a transition to LED streetlight bulbs could save some USD 10 million annually in gas-value amounts and contribute to employment opportunities to handle that transition – paid jobs, which could easily be funded through those same savings with the right financial mechanisms to support it. Renewable Energy projects in solar and wind are also proposed, which could eventually lead to a phasing out of fossil fuel plants and less and less local natural gas consumption – and much wider and deeper benefits coming from a better use of this valuable resource; leaning more closely towards the model of Norway – another global fossil fuel energy leader

I would in particular encourage our policy makers to recognise what a valuable win this could also be for themselves, as the administration responsible for driving and leading this transition to a more secure and sustainable future for our country. I believe such a move could bring great benefits to any individuals or parties leading this cause, in being applauded by future generations as the visionaries who took the bold step to help get Trinidad and Tobago back onto more solid ground, and reposition us as true energy innovators – an area in which we had a great reputation in the past, but where we are currently on a rocky and slippery slope as regards the future.



Putting renewable energy on the map by talking about it

5. *How optimistic are you about the future of sustainable energy in Trinidad & Tobago? And in the region?*

Given the plummeting prices of renewable energy globally, in the form of small-scale to utility-scale solar projects, as well as wind, **I believe that based on the economics alone we are destined to transition towards sustainable energy at a global scale, and therefore also throughout the Caribbean region.** Regionally also with the increase of extreme weather events, the realities of climate change are hitting a lot closer to home and the Caribbean people are becoming much greater advocates for climate action and the desire to contribute to a global solution – which is an aid in the desire to move towards clean energy. Also, given the new realities and the need to build back islands and countries with greater climate resilience, it is becoming clear that renewable energies play a role in that picture, especially when we talk about decentralised solar energy. In Puerto Rico and Dominica, which were recently hit by Hurricanes Irma and Maria, where buildings had grid-independent solar power supplies, they were able to get back up and running almost immediately after the hurricanes passed over. On the contrary, other parts of the islands were left waiting for weeks and months to regain electricity, given a completely destroyed energy grid. I am confident, therefore, that there is will throughout the region, and hopeful that the right combination of mechanisms and support systems, coupled with the political will of Caribbean leaders, will see that transition taking place in the relatively near future.

I am also confident that the transition to sustainable energy will take place in Trinidad and Tobago. However, it has been more difficult to see this and easier to get despondent about the lack of apparent action being taken now, where T&T's progress in transitioning to clean energy is one of the lowest-ranked in the world, and the lowest in the Caribbean. But given the dramatic economic savings and revenue opportunities now available to T&T through getting on that bandwagon, and the fact that this information is becoming more greatly available and with stronger partnerships growing across all sectors; as national, private and civil society sectors are all recognising each other to be saying the same thing, I believe there is a unique opportunity now for leaders to find the political will to make ground-breaking and historic decisions to move in this direction. T&T has been facing an economic recession for several years and an urgent call to diversify. Having been a recognised fossil-fuel energy leader for so long and given the great amount of respect the people of T&T have for our energy industry, I believe that the charge to diversify our energy sector and to become TRUE energy leaders could be the leading and pivotal transition which could help spark diversification across the board in many other sectors as well.