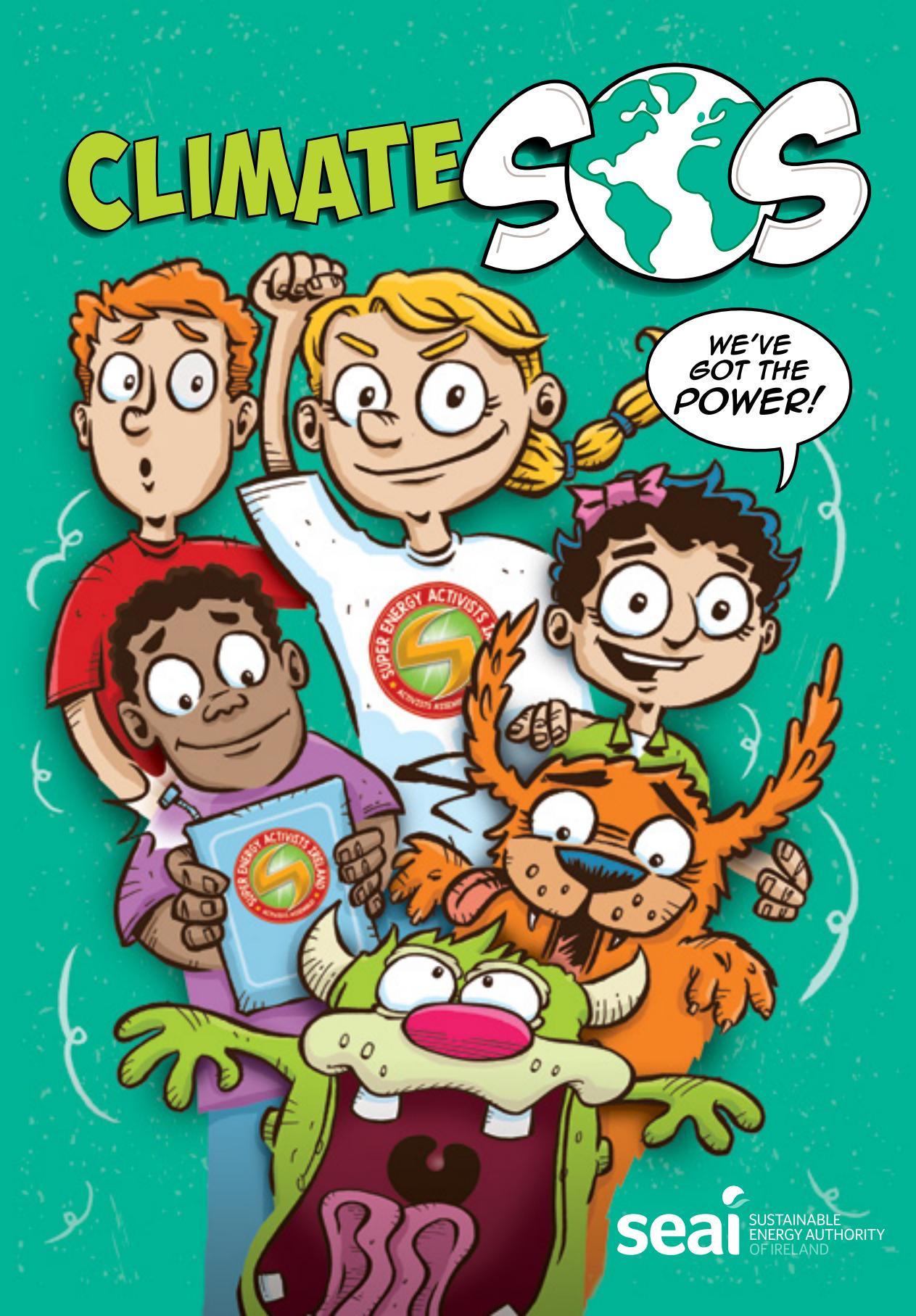


CLIMATE SOS



WE'VE
GOT THE
POWER!



SUPER ★ ENERGY ★ ACTIVISTS ★ IRELAND

CLIMATE GEMS

WRITTEN BY
LUCINDA JACOB ★ ALAN NOLAN

EDITED BY ORLA KELLY

ORLA -
COMMUNICATIONS
EXPERT

I LOVE TALKING
TO PEOPLE.

AHMED - NEW
TECHNOLOGIES
EXPERT

I LOVE RESEARCHING
ALL THE NEW STUFF!

JACK -
NATURE EXPERT

I LOVE NATURE
- ESPECIALLY
CREEPY-CRAWLIES!

KATERINA - MAKING
THINGS EXPERT

I LOVE BUILDING
THINGS!

SPARKIE -
CLEVEREST DOG
IN IRELAND

WUFF!



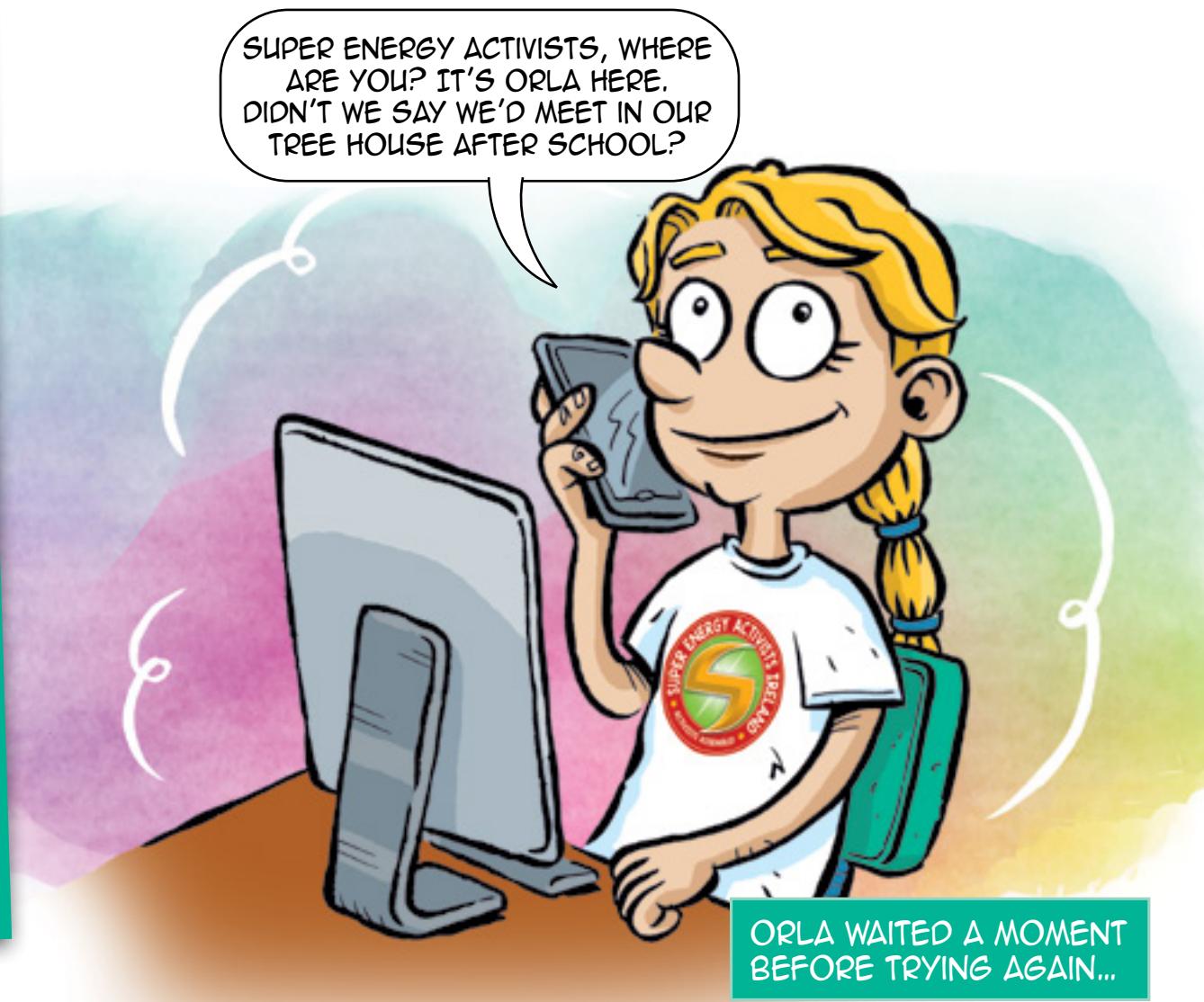
WE ARE THE SEAI - SUPER
ENERGY ACTIVISTS OF IRELAND!
...AND TOGETHER
WE'VE GOT THE POWER!

seai SUSTAINABLE
ENERGY AUTHORITY
OF IRELAND



CHAPTER ONE

ACTIVISTS ASSEMBLE!



'Super Energy Activists! Do you read me? We said we'd meet after school!' At last there was a beep from her phone.

'Ahmed here, Orla, I'm busy on my project about ocean energy. What's up?' Before she could answer there was another, then another beep, and all the group were on.

'I'm on my way,' said Jack. 'I'm on the new cycle path that goes through Ballycarrick Park.'

'Got your message,' said Katerina. 'I'm just adding a few more bamboo canes to the bee hotel I'm making, then I'll be on my way too.'

When they all arrived Orla said, 'Do you remember what we learned about climate change in school and how it can be really bad for plants and animals – and us?'

'Yes,' said Jack. 'Climate change means more storms and floods and even droughts all over the world and it has a huge effect on habitats.'

'Our planet is calling SOS,' said Katerina, 'and people aren't doing enough to help nature so I think it's time for us Super Energy Activists of Ireland to act!'

'Wuff, wuff, wuff, wuff, wuff!' or, 'They don't know it, but I know exactly what they are saying, and I'm ready for action,' said Sparkie, SEAI Cleverest Dog in Ireland, who was lying at Orla's feet.



'You're right, Katerina,' said Jack. 'Think of the crazy weather we've been getting! The extra wet winters that aren't really cold and then the mad hot summers tell us the climate is changing.'

The problem is the way we have been making and using energy,' said Ahmed.

'Especially wasting energy, Ahmed!' Orla interrupted

'So true, Orla,' he replied, 'and people have been burning too much fossil fuel, like oil, coal and turf to make energy.'

'And using loads and loads of petrol and diesel in their cars!' Jack declared.

'They are all made of carbon and give off carbon dioxide when we burn them for energy or to make plastic,' said Katerina.

'And scientists know that's what's causing climate change,' Ahmed added.

'So what can we do?' asked Orla.

'I think we can start with our own school,' said Ahmed. 'Everyone in our class knows about climate change now. Maybe we can make some changes ourselves?'

'We can all do something,' said Jack. 'If everyone started with small changes then altogether it would make a big difference.'

'Maybe we could talk to the Green Team and get the whole school involved?' said Katerina.

'Great! It sounds like something for us Super Energy Activists of Ireland!' said Orla. 'Let's see what we can do! See you in school tomorrow!'



When the five members of SEAL got to Ballycarrick National School the next day poor Sparkie had to stop at the gate. The clever dog sat there thumping her tail on the ground wishing she could go to class too as more children ran into school.

Just then Caitlin and Harry came around the building. ‘Hi,’ said Harry.

‘I like the Green Team badges,’ said Ahmed.

‘Cool T-shirt, Ahmed!’ Caitlin replied.

SEAL told Caitlin and Harry how they wanted to stop climate change and protect nature. They told them about their idea of getting the whole school involved.

‘There are lots of things we can do to help plants and animals!’ said Jack.

‘One of the best things we can do is to reduce the energy we use,’ said Harry.

‘We can try not to waste it,’ said Katerina.

‘Yes,’ said Orla. ‘And we can stop using fossil fuels for our energy. We can change to different types of energy like wind and solar energy.’

‘Has the Green Team noticed any ways we use too much energy in school?’ asked Ahmed.

‘Yes! Yes!’ Harry and Caitlin replied.

Harry showed the gang the hot stuffy classrooms and the ancient oil-fired boiler which had only two settings, “On Full Blast” or “Completely Off”.

‘That explains the burning hot water in the taps and the overhot radiators!’ Jack exclaimed. Caitlin pointed out the thin walls of the school building and the single-glazed windows. Katerina noticed that some of the classrooms still had their interactive whiteboards turned on even though they weren’t being used.

‘No insulation in the roof, I suppose?’ asked Ahmed.

‘I don’t think so,’ said Caitlin.

‘I think we’ve got a lot to learn in this school!’ said Jack.

‘You can say that again,’ said Orla.

‘We’ve got a lot to learn –’ Jack began.

‘I didn’t mean you to *literally* say it again, Jack!’

‘Then why did you say to say it again?’

‘Oh, forget it, I’m sorry,’ said Orla.



‘And look up,’ said Caitlin. ‘I’m pretty sure we are wasting energy with these old light bulbs too.’

‘Especially when we forget to turn them off when we leave the room!’ Harry piped up. ‘Switch off before you head off!’

‘There is SO much we can do,’ said Orla. ‘But we need to get everyone involved. We are all using too much of the earth’s resources. We humans are damaging our planet and everything that lives on it is affected. We need to use less energy and stop wasting it.’

‘And the energy we do use should be renewable, sustainable and green, because that is less damaging to the earth and all the plants and animals,’ said Caitlin.

‘So we need to tell them about that,’ said Harry, ‘and about ways we can help our planet.’

‘We don’t need to go far,’ said Jack. ‘We have lots of stuff we can show about the importance of protecting habitats and biodiversity, especially our native trees and pollinator plants, right here.’

'Then we can research ways that the school can make changes and start reducing energy waste,' said Ahmed.

Caitlin and Harry looked at each other. 'That's brilliant!' said Caitlin.

'We need to get everyone involved,' said Harry. 'The Green Team can hold an Energy Action Day and invite all the children, their families and teachers...'

'I'll start making some bird boxes to show them,' said Katerina as Sparkie rushed past, nearly knocking Harry off his feet.

'Guzzler!' wuffed Sparkie, 'I thought you might be here!'

Guzzler took one look at Sparkie and took off with Sparkie hot on his heels.



'Who, or what, was that?' asked Orla.

'I dunno,' answered Ahmed, 'but it will only take a sec to look him – it – up on my Ahmed-o-pedia!' He took a small device out of his backpack and quickly powered it up. 'My Uncle Ajay helped me make this, and he's a genius!'

The screen flickered to life and two strange-looking characters appeared...

A handheld electronic device with a screen displaying a search results page. The screen has a dark green background with a brown border. At the top, it says 'AHMED-O-PEDIA' and 'SEARCH COMPLETE'. Below this are two cartoonish character profiles. The first character on the left is 'MAX SIPHON', depicted as a bald man with a large, smug smile, wearing a white shirt and tie. The second character on the right is 'GUZZLER', depicted as a green, horned, dog-like creature with a wide, toothy grin and a long, pink tongue. Below the characters, there is descriptive text for each. At the bottom of the screen, the words 'Ahmed-o-Vision' are visible. A hand is shown holding the device, and a row of three circular buttons is visible at the bottom.

A FEW MINUTES LATER SPARKIE CAUGHT UP WITH GUZZLER, JUST IN TIME TO SEE HIM DISAPPEARING THROUGH THE DOORS OF A HUGE, BRIGHTLY LIT MANSION...



12



13

CHAPTER TWO

BURSTING WITH ENERGY!

A few days later Sparkie arrived back at Ballycarrick National School to find the Energy Action Day in full swing. Things were happening all over the school. Caitlin and Harry had been working hard to make it happen. Now they and the school Green Team were at reception welcoming children and their families and telling them what was on offer. SEAI were there too. Jack was leading a workshop by the bike park in the school grounds. ‘Look how our new bike shed is keeping our bikes safe and dry. It’s even got a green roof with lots of plants and minibeasts already making their homes on it,’ he said. ‘Can anyone tell me what this is? Butterflies love these wildflowers full of nectar!'

Inside people were gathered in the classrooms and the hall attending workshops and talking excitedly. One focused on climate change. ‘We can see the impact of rising temperature on the environment and people,’ said Katerina. ‘It’s not just the Arctic ice-caps and tropical rainforests that are affected. We need to protect fragile habitats here too.’



At another table Orla explained the ‘Energy Challenge’ that some of the children were taking on. ‘It’s about small changes that add up to big change,’ she said. ‘We can try and walk and cycle more, or turn the thermostats on our central heating down even one or two degrees. Has anyone here got any ideas for what else we can do?’

Orla gazed about the room. ‘How about you, sir?’ No one had noticed that Max Siphon and Guzzler had followed Sparkie to the school for the event and now here were the wasteful twosome sitting at the back of the hall. ‘Have you got any ideas to help with Climate’s SOS?’ Orla continued.

‘Erumph, er, no, not me,’ said Max Siphon looking startled. ‘You are so switched-on, dearie. Such a power-ful speech!’ Orla turned to a more enthusiastic parent who had lots of good ideas.

In the big hall Ahmed was leading a discussion about technology for change. ‘What about changing to green energy?’ a parent suggested. ‘We could do that by changing to a supplier that uses renewable energy like wind or solar instead of fossil fuel.’

‘Something we could do immediately is change all the lights to LED,’ said the principal. ‘I think we could look into that.’



'That was brilliant!' said Harry at the end of the afternoon as SEAI and the Green Team started to clear the chairs and set out the tables ready for class the next day. None of them noticed one very angry looking Max Siphon and Guzzler lurking in the shadows.

'Yes, we really got them all on board,' said Caitlin. 'The parents are going to fundraise for insulation for the school roof and walls.'

'The teachers are going to turn the heating down to 18°C in the classrooms and see about getting heating controls,' said Ahmed, 'and in class we're going to be researching climate change and how sustainable energy can protect the environment.'

'Slow to Mow – that's my new slogan!' said Jack. 'The Green Team have persuaded the caretaker to leave an area of the grass unmown this year, and we're going to do a bug count to see how many species live in the long grass.'

'The principal liked my bird boxes,' said Katerina. 'One of the parents offered to help make bat boxes too so we will be making those in the next few weeks.'

'Ok, I've certainly heard enough for one night!' said Max to Guzzler with a snarl. 'I'm off! Are you coming with me?'

'I'll follow you,' said Guzzler. 'I've just seen Sparkie and it looks like she wants to talk to me.'





'Well, Guzler,' said Sparkie. 'What did you think of that? Weren't all the children's ideas brilliant?'

'I suppose so,' said Guzler, sounding a bit unsure.

'So, will you be making any changes? Will you try and save energy? Will you help protect plants and animals?' Sparkie asked. She got no answer. While she had been talking Guzler disappeared!

Back in the games room at the tree house Orla noticed a message coming from Ahmed in the planning room.

'Orla,' he said. 'I think I can see something funny happening on the national grid – could be a Climate SOS for SEAI!'

'What's the national grid, Ahmed?' Jack asked.

'It's the country's energy network – the power lines we see everywhere,' he replied. 'And there's a cool website which shows how much energy we get from wind.'

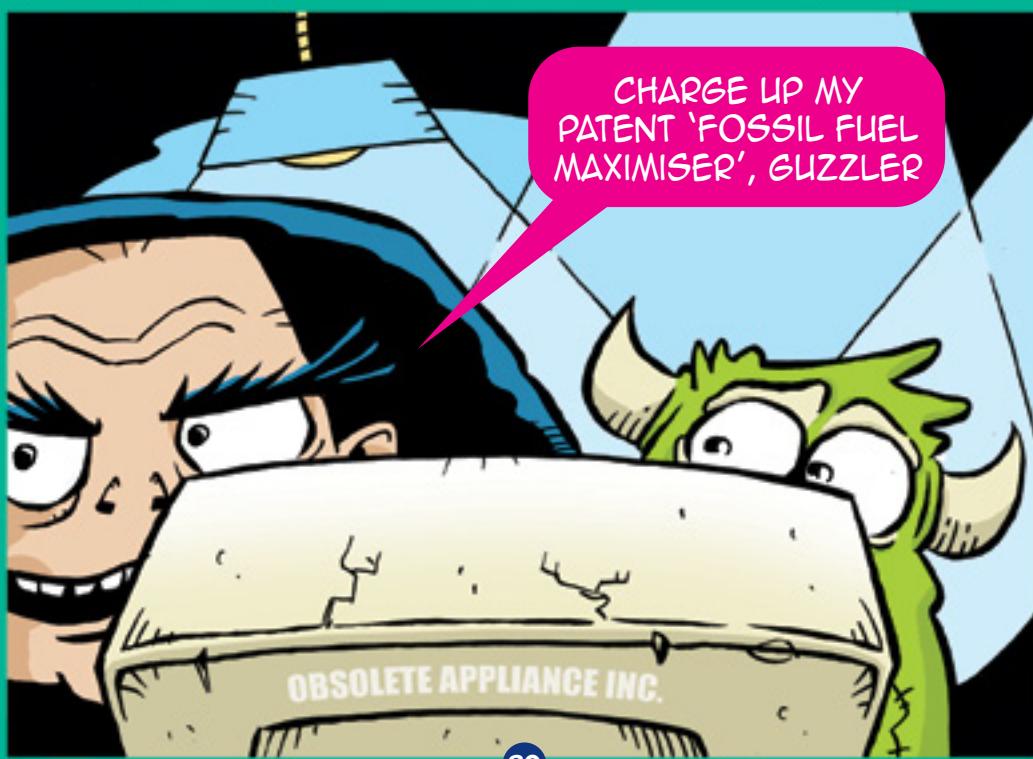
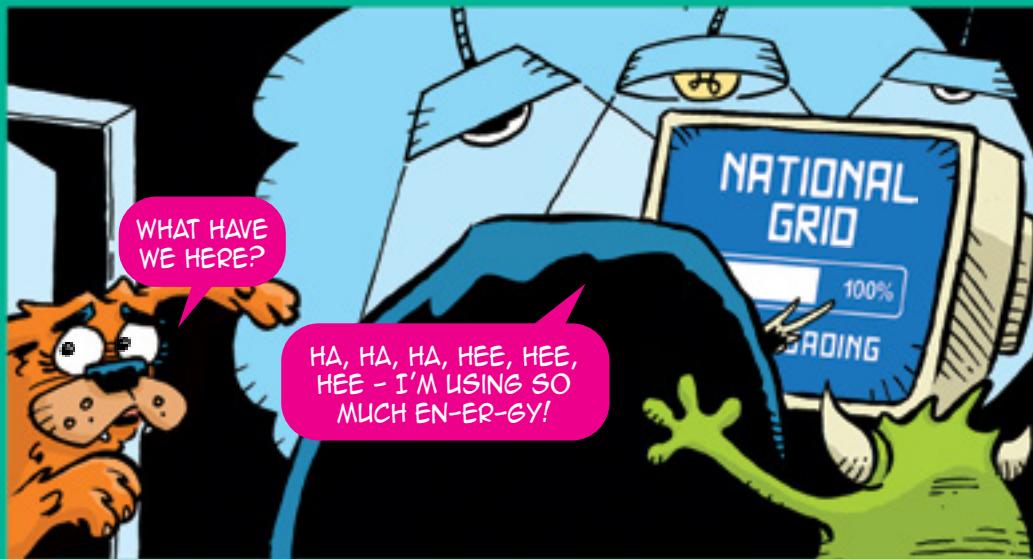
'Find out as much as you can,' said Orla.

'Is there something we can do?' said Katerina.

'I think I can do something,' said Sparkie to herself, barking for Orla to let her down from the treehouse.



LATER, AT CARBON LUXE MANSION...



20



21

'What are you doing, Sparkie?' said Ahmed, as the dog nudged his elbow. 'You're not a pet, you're a pest!' Sparkie kept on pushing at Ahmed's elbow, making him mis-hit the keypad. 'Stop!' shouted Ahmed. Sparkie looked at the screen and sat back looking satisfied with herself. Ahmed looked back at the new screen that had just popped up. 'Thanks, Sparkie!' he said. 'Hey,' he called to the others, 'I think I know what is happening!'

'What is going on?' asked Katerina.

'It looks like energy is draining from the national grid,' said Ahmed.

'Isn't it always?' asked Jack. 'Aren't we all still using too much energy?'

'No, this looks far worse than usual,' said Ahmed.

'Can you pinpoint the problem?' asked Orla.



'Give me a moment,' said Ahmed, scrolling through the information.

'Ah, yes, I have it. There is a meter at Killderry Community Wind Farm in the west of Ireland that is registering energy use a hundred and fifteen times faster than usual!'

'Someone is wasting a huge amount of Killderry's precious green, carbon-free energy!' said Jack.

'Or someone is stealing from it,' said Katerina.

'Let's go!' said Orla. 'Our climate is calling SOS! Super Energy Activists Ireland to the rescue!'

'We are SEAI and...'



CHAPTER THREE

WHIRLING TURBINES!

The five energy activists (don't forget Sparkie is one of them!) arrived at Killderry Community Wind Farm just as a group of schoolchildren was being shown around by a shifty-looking guide with a scarf tied around his face. 'Sorry about the wind, folks,' he said with a cackle. 'But that is one of the drawbacks of wind energy. It's not cosy like when we burn our loverley-doverley fossil fuels.'

Several of the children looked confused, bemused and upset.

'Excuse me,' one of them said. 'We came to find out how great wind energy is. We know we have lots of wind we can use in Ireland and we want to be carbon neutral back home in our community, just like you here in Killderry.'

'Why are you saying fossil fuels are lovely,' said another child, 'when all around us our planet is telling us we have to stop using them?'

'Er,' the man began. Then a small green creature piped up.

'Don't bother with silly sustainables,' he said. 'We are perfectly ok with the old fuels we have always used.'

The children looked even more confused, bemused and upset.

'Guzzler!' wuffed Sparkie. 'What are you doing here?'



'Sorry, got to go!' said Guzzler to the children and ran off with Sparkie chasing after him, and Ahmed close on her heels. Just then the guide's scarf was whipped from his face by a gust of wind.

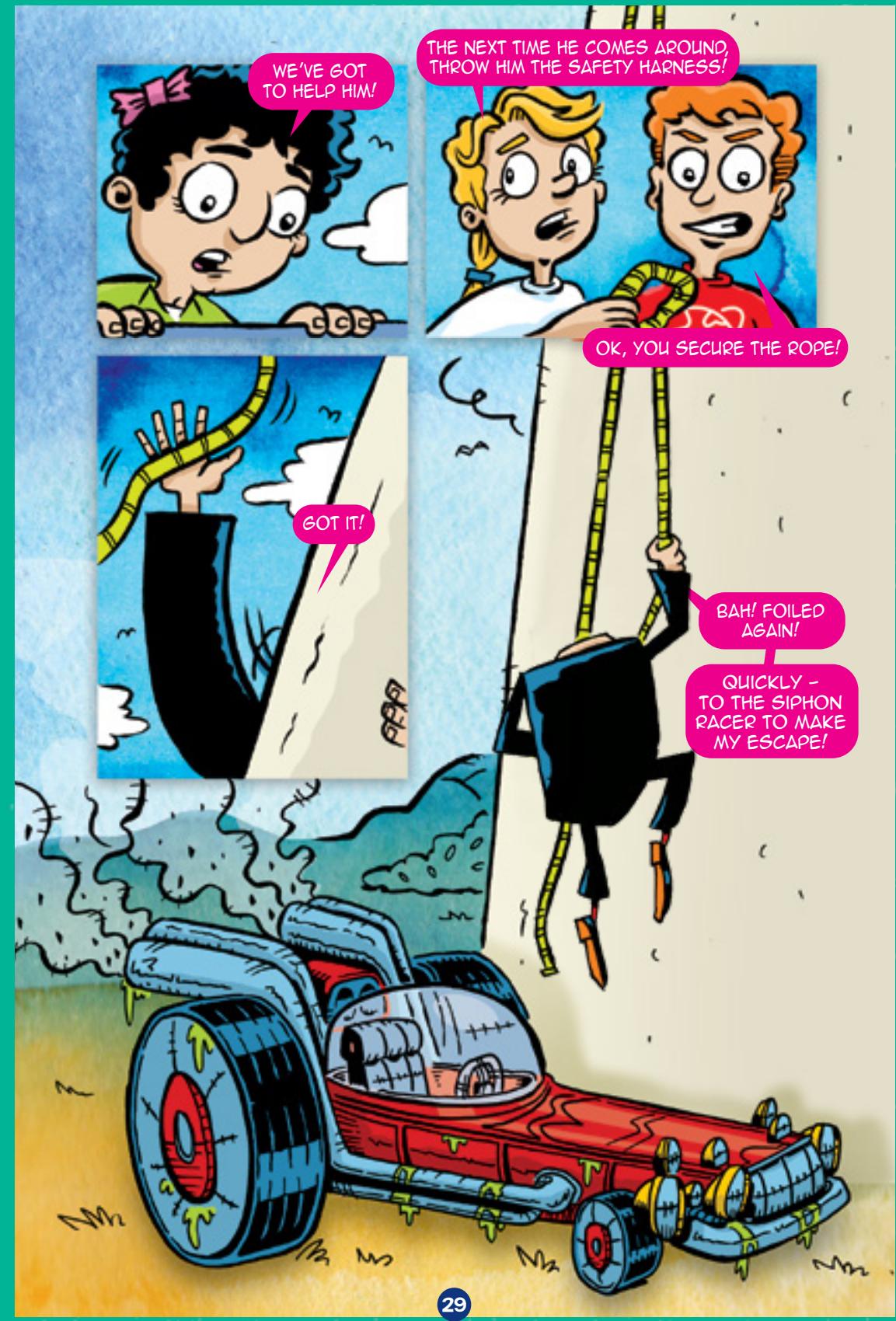
'Don't I know you from somewhere?' said Jack.

'I know who you are!' Katerina exclaimed. 'You're Max Siphon! I bet you're the one stealing energy from the wind farm!'

Max started running...

'Quick,' shouted Orla, 'after him!'







'I don't think they'll have any more problems with him here,' said Orla.

'Wuff, do you see what a silly idea it was?' said Sparkie as she rounded the corner with Guzzler.

'But Max said it was a good idea,' whined Guzzler. 'He told me to do it. He said there is so much energy here it's a shame for us not to use it.'

'As I thought,' said Ahmed, 'the meter is racing and lots of energy is being diverted away from the community. I can see it's going straight to Carbon Luxe Mansion.'

'I'll soon fix that,' said Katerina, unhooking the cable Guzzler had attached to the wind turbine. 'Problem solved because together...

'We are SEAL and...

'We have the power!'

CHAPTER FOUR

PEOPLE POWER!

'Hey,' said Orla, when they met at the treehouse the next day, 'you know that place we learned about in school? Where people are helping the environment and helping themselves at the same time?'

'Yeah, that was Hoganstown,' Katerina replied, 'they have been trying to stop climate change. They are reducing their energy and waste and saving water, as well as changing to green energy to run their buses and cars and heat their homes.'

'I'd like to tell people about them, show what ordinary families can do to answer our Climate's SOS, but I need to know more,' said Orla.

'Hey! Hoganstown's where my nan lives,' said Ahmed.

'Let's visit!' said Jack.

'Great idea!' said Orla.

'Come on, Sparkie,' said Katerina.

'Wuff!' said Sparkie.



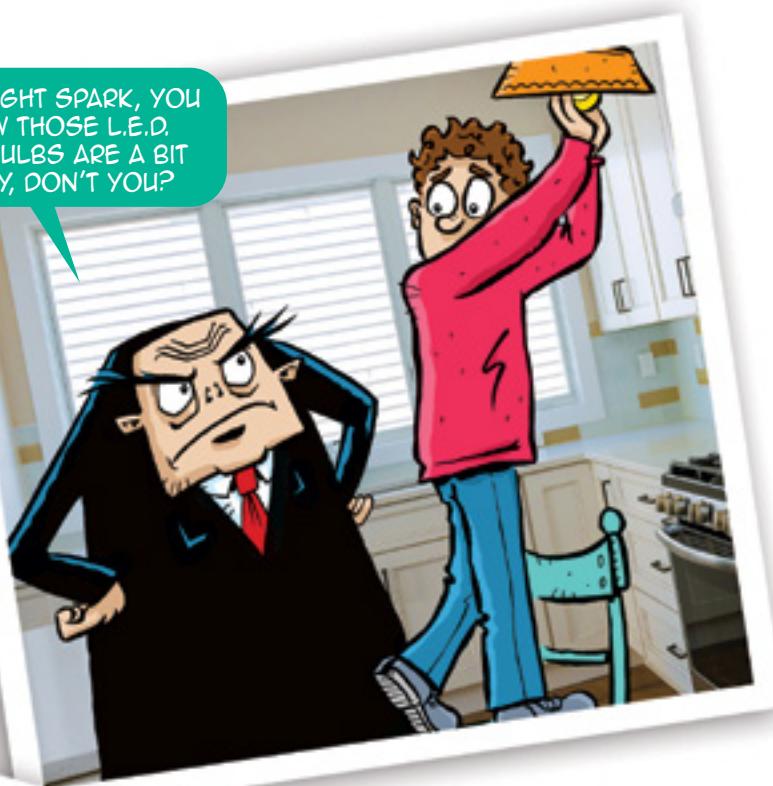
Some time later they arrived in Hoganstown to see a crowd of people on the street, all trying to get into the Green Bean Café. Deep inside the café someone in dark glasses and a hat was standing on a chair, waving his arms about and shouting. The owner of the cafe was looking on in horror as a small green barista struggled with the eco-coffee machine.



'You're all fools if you think your efforts here are going to make any difference!' shouted the man in dark glasses. 'You're all wasting your time and your money and your lovely, lovely energy... I've told you once, and I'll tell you again...'



HEY, BRIGHT SPARK, YOU KNOW THOSE L.E.D. LIGHTBULBS ARE A BIT SHADY, DON'T YOU?



THAT MAN IS RIGHT, WHY ARE WE BOthering WHEN WE ARE ONLY A SMALL PLACE, IN A SMALL COUNTY, IN A SMALL COUNTRY?

YES, WHY BOTHER?



'What has happened to everyone here?' said Orla. 'They were helping the environment, saving energy, and they had great plans to use green, sustainable energy and to go carbon neutral. Now they all seem so fed up.'

'I bet Max Siphon and Guzzler are at the bottom of this!' said Jack.

'We must stop them!' said Katerina.

'The two of them have made people here give up hope!' said Ahmed.

'But what they've been doing is great!' said Jack. 'It would be such a pity for them to give up now.'

'We could all learn so much from what they've done here in Hoganstown, they mustn't give up hope!' said Katerina.

'We must give them hope again,' said Orla, looking determined. 'Without hope no one will answer the Climate's SOS! This is our biggest emergency yet! Remember...

'We are SEAI and...'

WE HAVE
THE POWER!



HE, HE, GUZZLER, I THINK WE'VE PUT THEM ALL OFF THEIR STUPID DO-GOODY CLIMATE SOS NAMBY-PAMBY IDEAS. THAT MEANS WE CAN STILL SIPHON OFF THEIR ENERGY FOR MY SIPHONRACER, FOSSIL FUEL MAXIMISER AND CARBON LUXE MANSION! HERE'S TO EXCESS!

CHAPTER FIVE

WHY?

Back in Hoganstown Community Centre, ‘Why? Why do we need to change to sustainable energy?’

That is what everyone in the place seemed to be saying.

‘We’re the Super Energy Activists of Ireland and we’ll tell you why!’ said Orla, turning to the other SEAI members.

‘Number One,’ said Jack. ‘Taking fossil fuels like oil, gas, coal and turf from the earth and sea destroys nature and the places where plants and animals and people live.’

‘Number Two,’ said Ahmed. ‘Fossil fuels are unsustainable, they’re going to run out, we are using them up and they can’t be replaced.’

‘Number Three,’ said Katerina. ‘The pollution from burning carbon in fossil fuels is poisoning our planet and causing it to warm up! It’s causing climate change! We are all heading for extinction if WE don’t change.’

‘That is why we need to reduce our energy use and change to green, renewable, sustainable energy like wind, solar and ocean energy,’ said Orla.



There was a murmur in the hall as people started talking amongst themselves and the Super Energy Activists of Ireland were pleased to see that the mood had changed, people sounded hopeful, happy and enthusiastic again.

‘You young people are right,’ said a man standing close by. ‘We all need to keep on working to make our community carbon neutral and free of fossil fuels.’

Everyone else agreed.

Sparkie still looked worried.

‘Wuff! Wuff! Wuff! Wuff! Wuff!’ she barked at Orla.

Orla turned to SEAI. ‘Look!’ she said, ‘we still need to stop Max Siphon and his dangerous wasteful ways!’

‘Wuff!’ said Sparkie, ‘I just said that!’

‘Look! There’s Guzzler! Quick! After him!’

LATER, BACK AT CARBON LUXE MANSION...





40



41

WHAT YOU CAN DO

CHILDREN'S ACTIONS & ACTIVITIES



CLIMATE CHANGE AND THE BIODIVERSITY EMERGENCY – WHAT WE CALL CLIMATE SOS – CAN SEEM SO HUGE THAT YOU MAY WONDER HOW YOU CAN MAKE A DIFFERENCE.

WE ALL HAVE TALENTS & THINGS WE LIKE TO DO – WE JUST HAVE TO MAKE THE MOST OF THEM.

IF YOU LIKE TECHNOLOGY, LIKE AHMED, YOU CAN FIND OUT ABOUT THE AMAZING ADVANCES IN RENEWABLE, SUSTAINABLE ENERGY LIKE WIND, SOLAR, BIO AND OCEAN ENERGY THAT WILL HELP US ALL TO BECOME CARBON NEUTRAL.



IF LIKE KATERINA YOU LIKE TO MAKE THINGS, WHY NOT MAKE A BIRD BOX OR A BAT BOX FROM RECYCLED MATERIALS? OR MAKE A RAISED BED FOR GROWING THINGS OUT OF AN OLD CAR TYRE?

IF YOU LOVE NATURE, LIKE JACK, YOU CAN GROW POLLINATOR FRIENDLY PLANTS AND LEAVE AREAS TO GO WILD FOR ANIMALS AND BIRDS TO LIVE IN AND YOU CAN GROW YOUR OWN FOOD TOO.



AND IF YOU LIKE TALKING, LIKE ORLA, YOU CAN TELL PEOPLE WHY SAVING ENERGY IS SO IMPORTANT AND REMIND THEM TO SWITCH STUFF OFF!



DON'T FORGET THAT...

WE ARE THE SUPER ENERGY ACTIVISTS OF IRELAND AND...

WE HAVE THE POWER!

AND SO DO YOU! WUFF!
FIND OUT MORE
WWW.SEAI.IE/SCHOOLS

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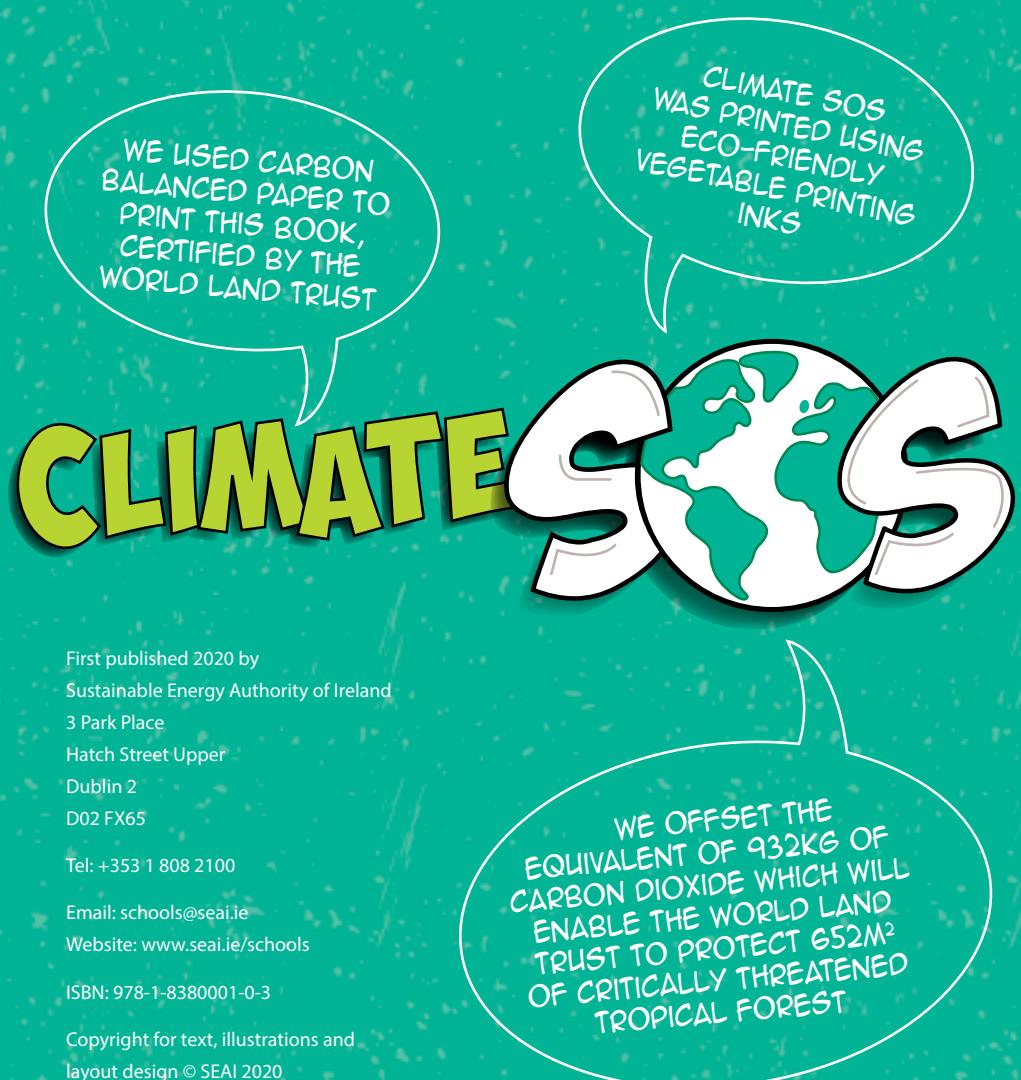
A huge thanks to all the Sustainable Energy Communities around the country for continuously showing us the amazing work that's happening every day at a local level.

A big shout out to the teachers and pupils of Gaelscoil na gCloch Liath, Wicklow; Glen na Smol National School, Dublin and Gaelscoil Chnoc Liamhna, Dublin who selflessly gave of their valuable time to provide us with honest and extremely helpful feedback during the early stages of the book.

We really appreciate SEAI's team of school facilitators who took the time and effort to scrutinise the book before it went to print.

And finally, thanks to the many SEAI staff, and their children, for their expert knowledge and insights about all aspects of sustainable energy in Ireland.

The Government's Climate Action Plan states the sustainable energy transition challenge is unique in that change must happen in every home, in every workplace and in every network which supports our lifestyle. We hope this book goes some way towards engaging and empowering citizens of all ages as we decarbonise our energy system.



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Editing: Orla Kelly, DCU



This Super Exciting story
will switch you on!

The Super Energy Activists Ireland are four kids (and one dog) who are Super Focused on finding out about sustainable energy and Super Energised about protecting the environment.

Unfortunately their arch-nemesis Max Siphon and his gullible sidekick Guzzler seem to be Super Set on being Super Wasteful!

Can SEAI kids foil Max's odious energy wasting plans?