



PROTECT THE PLANET

Study circle



ENERGY IS DIVINE

This guide has been designed to help Centres/Groups of the Sathya Sai International Organisation (SSIO) facilitate a study circle on the topic of Energy. It has been developed to be delivered in two parts. This is part 1, having a duration of one hour.

Part 1 will cover: *What is energy, what are different forms of energy, where energy comes from, and how it permeates everything*

PART 1

OPENING AND INTRODUCTION			
ACTIVITY	NOTE TO FACILITATOR	RESOURCES	DURATION
3 OM's or silent sitting followed by an opening prayer	Whether omkar or a minute of silent sitting is used depends on the audience this study circle is being delivered to. Either way, the objective of this activity is to help settle the group and establish group dynamics. This is the same for whether a prayer or short reading is used.		1 MIN
Introduce today's topic	<p>This study circle is part of the Serve the Planet (STP) initiative of the SSIO and is based on the theme 'Protect The Planet' with a focus on 'Energy.'</p> <p>The purpose of this study circle is to better understand what energy is, where does it come from and how we use it.</p> <p>It is important to remain respectful and open at all times. Keep in mind that the Study Circle is about sharing and exploring the topic and inspiring each other rather than 'finding right answers'.</p>		1 MIN
TODAY'S DELIVERY			
ACTIVITY	NOTE TO FACILITATOR	RESOURCES	DURATION
Question 1: What is Energy?	<p>So what exactly is "energy"? The English word, "energy" comes from the Old Greek ἐνέργεια (energeia), which is derived from two parts - "en" meaning in/within and "ergon" meaning work.¹</p> <p>Pose the question to the group, 'What is energy?' Once participants have shared their thoughts, the facilitator should round off the first question with the below thoughts and any ideas not shared by the group should be elaborated upon.</p> <p>At first the concept of energy may feel like an easy one and on closer inspection this understanding may be vague. Some</p>		10 MINS

“textbook” definitions are given below.

The definition according to the Oxford English Dictionary is dependent on the context i.e., science defines energy as the ability a physical system has to do work on other physical systems, and once the work is done, the energy is not depleted or all used up. Energy is a conserved quantity; the law of conservation of energy states that energy can be converted in form, but not created or destroyed.² In fact, the Universe is a constant flow of energy. The Dictionary alternatively describes energy as “The strength and vitality required for sustained physical or mental activity.”¹

Did anyone mention **matter** when describing energy? Sathya Sai Baba beautifully explains the existence and inter-relationship of energy and matter in the below quotes.

Whatever appears as matter also becomes energy

“Very often, scientists refer to the two terms - matter and energy - but truly only energy exists. Whatever appears as matter also becomes energy in due course of time. None can describe the glory and grandeur of this transcendental power. “*Yatho vacho nivarthanthe apraapya manasa saha* (this energy is beyond the comprehension of the mind and description by words).” This transcends the powers of body, mind, and intellect.” – Sathya Sai Baba (SSS 32.2: October 15, 1999)

Matter and energy are inter-related

“In every *padhaartha* (object) in the world, the *Paraartha* (transcendental) is immanent. The *padhaartha* is perceptible. The *paraartha* is present in it as energy. Although *padhaartha* (matter) and *Paraartha* (Energy) appear to us as two different entities, their unity constitutes the Divine principle immanent in the cosmos. Energy is the subtle base, matter is its gross expression. They are inextricably interrelated.” - Sathya Sai Baba (SSS 26.22: May 24, 1993)

Energy is Divine

“What the scientists call ‘matter’ is energy alone. An object appears as matter. But it becomes energy later on. Likewise, one may appear to you as an individual, but even he becomes energy in due course. Hence, all the forms and names you see are all manifestations of energy. **What is this energy? It is something, which you cannot see or hear or conceive in the mind. Energy is energy alone. It is Divine.**” – Sathya Sai Baba (SSS 30.18: July 20, 1997)

By simply being alive, humans are releasing energy back into the environment around us, to be used by other things in other ways. Thus, **energy permeates everything**. A quote below speaks volumes on this:

“What is this energy? It is something, which you cannot see or conceive in the mind. Energy is energy alone. **It is Divine.** Every

	<p>physical object has a base. There is electrical energy in man. There must be a basis for all the energies in the cosmos. You see that in the world every object is based on some other object. God is the base for all the energies in the cosmos. The <i>Vedhaanthins</i> call this energy as <i>Atheetha Shakthi</i> (Transcendental Energy). Scientists have termed it “Super power”. The names used may vary, but the substance is one and the same.” – Sathya Sai Baba (SSS 30.18: July 20, 1997)</p>		
<p>Question 2: What forms of energy exist?</p>	<p>Pose question 2 to the group, using the material below to support your discussions. You may also play the suggested Video 1.</p> <p>Science or the standard understanding of energy breaks up energy into two basic categories of energy, where each of those two categories further has its respective forms as listed below:</p> <ul style="list-style-type: none"> - Potential energy – stored by an object’s position <ul style="list-style-type: none"> ● Gravitational energy ● Chemical energy ● Nuclear energy ● Elastic energy - Kinetic energy – energy of a moving object <ul style="list-style-type: none"> ● Motion energy ● Thermal energy (heat) ● Sound energy ● Electromagnetic radiation ● Electric energy <p>And while modern physics studies all the measurable energies that exist in the Universe, it is possible to study energy that cannot have a measurable property.</p> <p>“There are three types of knowledge: knowledge of material energy, knowledge of mental energy, and knowledge of cosmic energy. Cosmic energy works in every person in the form of divine knowledge. Matter in all forms is only energy. Without atoms, you cannot have any matter, and in the atom, energy has the form of electron, proton, neutron, etc. Energy springs from the structure of the atomic constituents. For example, if you take water from the ocean in a vessel, it assumes its shape, and when breezes blow there are ripples on it, which manifests energy proportionate to the quantity of water in the vessel. But when the whirlwind rages over the ocean, the big waves can sink ships and pulverize cliffs. Scientists work only on the external source of energy, they don’t investigate the internal sources. You go millions of miles into space, but you don’t go half-an- inch within, where lies your strength, the <i>Atma Shakthi</i> (force or power of the Universal Soul).” – Sathya Sai Baba (SSS 14.54: September 21, 1980)</p> <p>We have defined energy and discussed its forms. In the next part of the discussion, get the group to discuss where energy comes from, including their personal sources of energy.</p>	<p>VIDEO 1 – www.youtube.com/watch?v=Q4M-q8fij2I (5 mins)</p> <p>(*Note if no video facilities are available on-site, participants can be sent ALL video links beforehand to watch at home prior to the study circle taking place)</p>	<p>5–10 MINS</p>

<p>Question 3: <i>So where does energy come from?</i></p>	<p>Pose the following questions to the group for introspection. You may use information below and Attachment A to support your discussions.</p> <ul style="list-style-type: none"> • Where does energy come from? • Why does the source of our energy matter? <p>In the Universe also exists three basic energies:</p> <ol style="list-style-type: none"> 1. Physical energy (Sun) 2. Mental energy (Om) 3. Spiritual energy (Creation) <p>PHYSICAL ENERGY</p> <p>As we know, energy can change form, but from where did that energy ultimately come from. If we trace the root of all the physical energy, we will come to the Sun and that all the Sun's light energy comes from nuclear reaction of the atoms in the heart of the Sun.</p> <p><i>"The earliest finding of seekers was that the Sun was the most important factor in determining the daily life of man and providing the basic requirements for living. Life would be impossible without the Sun for man, beast, bird or plant. The Sun was regarded as the source of all energy and responsible for birth, growth and destruction of all things in creation. It was this reason that Sage Vishwamitra glorified the Sun (Savitr) in the Gayathri Mantra."</i> – Sathya Sai Baba (SSS 9.4: March 8, 1986)</p> <p>Gayathri Mantra: <i>Om Bhur Bhuvah Swah, Tat Savitur Varenyam, Bhargo Devasya Dhimahi, Dhiyo Yo Nah Prachodayat</i> [Translation: We meditate on that most adored Supreme Lord, the creator, whose effulgence (divine light) illumines all realms [physical, mental and spiritual]. May this divine light illumine our intellect.</p> <p>Thus, even the physical energy used by the body has its source in the Divine!</p> <p>What are the sources of physical energy? (<i>this will be covered in detail in Part 2</i>) Once participants have shared their thoughts, the facilitator may round off the question with the below information if not shared by the group.</p> <p>There are two types of physical energy sources: 1) renewable and 2) non-renewable.</p> <ol style="list-style-type: none"> 1. Renewable energy sources, also called an infinite source of energy, are those that can be replenished in a human's lifetime. Examples include: Solar, Wind, Geothermal, Biomass, Hydropower. 2. Non-renewable energy sources, also called finite source of energy, are those that cannot be replenished or take thousands of years to replenish. Examples include: Coal, Petroleum and Natural Gas. 	<p>VIDEO 2 (on Om) – https://www.youtube.com/watch?v=HAknOrJdsg (3 mins 31 secs)</p> <p>-----</p> <p>Attachment A</p> <p>-----</p> <p>Attachment B</p> <p>-----</p> <p>Attachment C</p>	<p>15–18 MINS</p>
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All energy derived from fossil fuels originates from solar energy (renewable energy source) captured by prehistoric plants and animals. When those plants and animals died, they got buried beneath layers of rock and under intense pressure and heat in the earth's crust, the energy stored within those decayed materials got converted to form fossil fuels (primarily, coal, oil and natural gas) over millions of years. Therefore, fossil fuels are non-renewable (as it takes millions of lifetimes to form).³

When fossil fuels are used to produce electricity and heat, the carbon within is converted to carbon dioxide (CO₂) and emitted into the atmosphere (in addition to other substances and chemicals), together with heat and water vapour.⁴

The amount of CO₂ (one of the major greenhouse gases) released in the atmosphere from combustion of fossil fuel accounts for increase in concentration of CO₂ in the atmosphere, thereby, resulting in warmer planet and climate change.³

Further question for introspection: why is it important to conserve this energy?

MENTAL ENERGY

*“The **buddhi** (intelligence) is very close to the **Atma** (Soul) and therefore well situated to receive 90 percent of the **Atmic** (spiritual) energy and illumination. The mind derives its power from the **buddhi**, the senses from the mind, and the body from the senses. In this process of the flow of power from the **Atma** to the body in stages, there occurs a gradual quantitative and qualitative diminution of the power.”* – Sathya Sai Baba (SSS 23.16: May 26, 1990)

Divine energy flows from the Atma to the intellect (buddhi) and then onto the mind and so on until it enters the body. This energy reduces in amount and strength and thus, the energy received should be actively conserved. High levels of mental energy allow for us to keep motivation levels high through activities, such as endeavouring to perform service and sadhana (spiritual discipline), push on while running, power to control the senses, etc.

How do you cultivate and conserve mental energy?

“The less you talk, the more your mental power will grow. With the increase in your mental capacity, there will be an increase in your power of discrimination too. Consequently, you will give up “individual discrimination” and resort to “fundamental discrimination.” Because of this, you will begin to consider the good of the world at large rather than your own individual welfare. You must cultivate such broad feelings from this young age itself.” – Sathya Sai Baba (SSS 25.15: May 24, 1992)

	<p>One of the ways to practise cultivating positive mental energy is to chant “OM.”</p> <p>“You should contemplate on the <i>Atma</i> and chant the mantra “<i>Om Namo Narayanaya, Om Namo Narayanaya, Om Namo Narayanaya.</i>” If you are unable to chant the entire mantra, it is enough to recite “<i>Om,</i>” because everything is immanent in <i>Om</i>. The word <i>Om</i> denotes <i>pranava</i> (primordial sound). The Upanishads describe it as the <i>Atma.</i>” – Sathya Sai Baba (SSS 42.19: April 29, 2009)</p> <p>If time permits, you may play Video 2 on “Om” here. Refer to Attachment B for further reading on how to conserve mental energy.</p> <p>Further question for introspection and discussion: Can you think of times you felt drained? Energised? Why was that the case? Let us see how your energy was utilized.</p> <p><i>(We will take a more detailed look at ‘Mental energy’ and its preservation/conservation in subsequent modules)</i></p> <p>SPIRITUAL ENERGY</p> <p>Spiritual energy has been given different names by different cultures: <i>Prana</i> (Sanskrit), <i>Chi</i> (traditional Chinese), <i>Ruah</i> (Hebrew) or the Universal life force. It is the energy that is present everywhere, at all times, in the visible matter and the vacuum of space. It is the energy that sustains all life.</p> <p>When an aspirant seeks their higher purpose, i.e., realisation of our innate divinity and that God pervades the entire Universe, they are tapping into the universal spiritual energy.</p> <p>“It is not possible for all to understand the nature of Divinity. This world looks like a picture painted on a wall that has no support. One has to make efforts to understand the principles of <i>adhara</i> (basis) and <i>adheya</i> (object). Do not waste your time in merely performing rituals. True spirituality lies in realising the truth that man is but a spark of Divinity. This is what is declared in the Bhagavad Gita: <i>Mamaivamsho Jivaloke Jivabhuta Sanathana</i> (all beings are a part of My Eternal Being). <i>Vaasudeva-sarvamidam</i> (the whole world is permeated by God, Vaasudeva). You have to experience this truth and propagate to the world.” – Sathya Sai Baba (SSS 36.12: July 13, 2003)</p> <p>“Spiritual energy has to be conserved by all possible means. The sages practised silence to conserve the energy lost through speech.” – Sathya Sai Baba (SSS 17.6: March 11, 1984)</p> <p>Sometimes, we need to talk, as it is part of the job and daily operation in life. What are other ways we can conserve spiritual energy besides being silent? Is it a mere utterance of the words that makes a difference?</p>		
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	<p>Sathya Sai Baba explains how by also reducing our thoughts we can conserve spiritual energy: <i>“For example, when you turn on the radio to listen to a certain programme, whether you raise or lower the volume of the sound, as long as the radio is on, the current is being used. Our mind is like the radio. Whether you talk with others or only think within yourself, you are consuming energy. Your mind is working all the time. Since it is always turned on, you are consuming a lot of energy. Instead of wasting that power, energy, or force in mental meandering, isn’t it better to spend your time in thinking good thoughts?”</i> – Sathya Sai Baba (Divine Discourse on Service and the Sai Organisation, November 21, 1988).</p> <p><i>Additional suggested readings on spiritual energy are provided in Attachment C.</i></p> <p>Thus, when it comes to the use of physical, mental or spiritual energies, the righteous goal in life is to see how we can responsibly use and channel our energies for the well-being of all. <i>Further suggested readings on how to conserve these energies are provided in Attachment B.</i></p>		
<p><i>Discussion:</i> The importance of knowing where our energy comes from</p>	<p>Pose the following questions to the group for discussion. Gauge responses to the question, read Attachment B.</p> <ul style="list-style-type: none"> ● Why does the source of our energy matter? ● How does it affect us – our body, our daily performance, our spiritual progress? ● How does it affect those around us as well, and how can they in turn influence us? ● How does conserving & preserving different forms of energy link to ‘Protecting the Planet’? <p>This means that knowing where our energy comes from and how we are using it, can help us to improve our energy consumption.</p>	<p>Attachment B</p> <p>https://www.youtube.com/watch?v=bn8R_Xqji10</p> <p>(3 mins)</p>	<p>10 MINS</p>
SUMMARY AND CONCLUSION			
<p>Closing summary of today’s session, what to expect at the next session, and homework</p>	<p>So far, we have learnt the following:</p> <ul style="list-style-type: none"> ● What energy is ● Everything is energy ● Energy is God ● What forms of energy exist in the Universe and in humans ● Where our energy comes from and what that means for us and our environment <p>In PART 2 of this study circle, we will cover:</p> <ul style="list-style-type: none"> ● What are the various sources of physical energy ● What is the impact of various forms of energy on the environment ● How to reduce our energy footprint and conserve non-renewable energy 		<p>2-3 MINS</p>

	<p><u>HOMEWORK and preparation for next session:</u></p> <ol style="list-style-type: none"> 1. For personal reflection: How do you use energy? Do you think of Energy as God or Divine? 2. For self-introspection: Look at the interaction between physical, mental and spiritual energies. Of the weekly energy you have, how much energy do you get from physical sources, how much from mental sources and how much from spiritual sources? 3. What are the ways in which you can increase these three types of energy? 4. Make a list of the ways in which you can use these three types of energy more effectively. 		
CLOSE	<p>Closing prayer or reading.</p> <p>Prayer for universal peace – <i>Om Shanti, Shanti, Shanti</i></p>		1 MIN

Note: Ideally there should be two Facilitators in groups of ten or more participants. The first facilitator is the one who is conducting the study circle. The second facilitator observes the group’s dynamics and informs the first facilitator of any lethargy and confusion from participants. This second facilitator also conducts the opening activity (E.g. Omkar) and the sharing of insights at the end. This helps give variety to the participants, but also allows the first facilitator space to capture important feedback and learning points for insight sharing.

References

1. <https://en.oxforddictionaries.com/definition/energy>
2. <https://en.wikipedia.org/wiki/Energy>
3. https://www.sciencedaily.com/terms/fossil_fuel.htm
4. http://energyeducation.ca/encyclopedia/Hydrocarbon_combustion

Attachment A

Where does energy come from? And why does the source of energy matter?

“The world cannot exist without the atom. Earlier, nothing existed in the universe. In the beginning, the Sun, the moon, the stars, the earth, the sky, etc., did not exist. There was only pitch darkness all around. The combination of atoms resulted in the formation of hard matter of a very high density. As a result, a lot of heat was generated. Then all of a sudden, the hard matter exploded with a Big Bang into pieces and spread all over. This was the cause of creation. This was also the experience of Kaanaada. The sound that emanated when the Big Bang took place is *Pranava*. That is *Omkara*, the primordial sound. This sound of *Pranava* is all-pervasive. It originated from *paramaanu* (minutest atom). There is nothing other than atom in this creation. ‘How can one understand and realise this?’ This was the enquiry of Kaanaada. Ultimately, he realised the principle of *Pranava*. This primordial sound has to be contemplated upon by man for attaining liberation.

“This truth was propagated by Kaanaada. It is from this *Pranava* that the sun, the moon, the earth, the sky, etc., originated. The atom is the fundamental basis of the entire creation. Every human being is a combination of atoms. There is no matter without atoms. But modern man is unable to understand the mystery of atoms. He considers the teachings of our ancient *rishis* (saints) as mere stories and ridicules them. He does not have the ability and capacity to understand the sacredness of ancient *Bharatiya* culture. He is not able to understand the reality that is within him. He installs the statues of ancient *rishis* and noble souls as a mark of respect for them but fails to understand their teachings and put them into practice. He has to install their sacred forms not outside but in the altar of his heart and follow their teachings. To which time does Kaanaada belong? Twenty thousand years ago, people were all praise for Kaanaada and his teachings. Kaanaada recognised the principles of Hydrogen and Oxygen. The scientists observed that hydrogen represented the water principle, while oxygen represented the fire principle. Today people attach great value to the observations made by scientists, but fail to understand and appreciate the great truths taught by our *rishis* out of their experience.

“How can one understand atomic power? Atom is not visible to the physical eye but it is present everywhere. The water we drink, the food we eat, the words we utter, the sound we hear, everything is permeated by atoms. Though man treads on atoms, eats atoms, drinks atoms, he is unable to understand their mystery. He thinks that only scientists can investigate the nature of atoms. Atomic process is highly sacred. By conducting a proper enquiry into this, one can understand divinity. This was the teaching of Kaanaada. But today nobody is conducting a proper enquiry to experience the atomic process. People are leading their lives with materialistic outlook.” – Sathya Sai Baba (SSS 35.13: July 24, 2002)

Attachment B

How can we conserve energy?

“Spiritual practice consists of speaking good, thinking good, seeing good, hearing good, and doing good. Excessive talking must also be avoided, as it is a waste of energy. When one gets weak due to wastage of energy, he is prone to get angry and develop hatred. You must therefore use your God-given energy for good purposes. Energy is a Divine gift. **By curtailing unnecessary talk and keeping silent, you can conserve energy.** ‘Talk less and work more’ is the golden rule to be adopted.” – Sathya Sai Baba (SSS 27.10, April 11, 1994)

“**Do not waste energy!** Energy is God. Today, students are wasting a lot of energy through unsacred vision, bad thoughts, bad hearing, and excessive talk. Our body can be compared to a radio. When the radio is turned on continuously, the batteries become discharged quickly. Likewise, if you indulge in excessive talk, you will be losing a lot of energy. That is why the ancient sages and seers used to observe silence. So, conserve energy by observing silence at least one day in a week.” – Sathya Sai Baba (SSS 32 II. 14: November 21, 1999)

“**Our physical, mental, and spiritual energies should never be wasted.** You might ask me, ‘How are we wasting our energies?’ If you see bad things, your energy is wasted. Hearing bad things, speaking evil,

thinking evil thoughts, and doing evil deeds wastes your energy. Conserve your energy in all these five areas, and make your life more meaningful.

See no evil—see what is good.
Hear no evil—hear what is good.
Speak no evil—speak what is good.
Think no evil—think what is good.
Do no evil—do what is good.
This is the way to God.

“The path of Divinity is not seeing, listening, speaking, thinking, or doing anything bad. If we are not following this path, we are wasting our energy. **On account of this waste of energy, we are losing our memory power, intelligence, power of discrimination, and power of justice.**” – Sathya Sai Baba (Divine Discourse on Service and the Sai Organisation, November 21, 1988).

Attachment C

“Man possesses within himself the constituents’ needed for generating electrical energy, radiation and telecommunication. The whole world is filled with electromagnetic energy. The world is governed by the principle of mutual attraction. Green grass attracts the cow. The child attracts the mother. The law of universal attraction is related to this magnetic power. *Raama* is the supreme symbol of riffs power of attraction. ‘*Ramayathe ithi Raama*’ (Because of his powers to please everyone he is called Raama). This *Raama* is not the son of Dhasharatha but the spiritual *Raama* who is *Atma-Raama* (Indweller in every heart). The *Atma* is universal magnet which attracts everything.

“Today if so many people from all over the world is drawn to this place, it is due to the power of attraction. When you keep a flower here, bees are attracted from afar. They are drawn to the flower because of the sweet honey in it.

“Not a single bee will be attracted by a plastic flower. The sweetness that attracts people is Prema (love). This love may be manifested in many forms -- maternal love, filial love, fraternal affection, marital love, friendly love and so on. Divine Love is the basis of all these forms of attraction. It is a powerful magnet. It is present everywhere including every human being.

“Every child bears the imprint of its parents. As all human beings have come from God, they should carry the marks of the Creator. Man has taken birth to manifest the Divine in him.

“Every being and every, object in the world is divine energy. It cannot be destroyed. But it can be changed from one form of energy to another. For instance, magnetic energy can be converted into electricity. From electricity you can get light or atomic energy. In this manner, energy can be converted to different forms, but it cannot be destroyed. This indestructible character is divine.

“Hence there is no place or object in the cosmos which is not permeated by the Divine. There is divinity in every particle and every cell. The sages therefore declared: ‘That which is subtler than the subtlest and vaster than the vastest and which is present everywhere as the eternal witness is the *Atma*.’ The Aathma is atom and the atom is *Atma*. All the three terms -- *Brahman*, *Atma* and atom -- represent one and the same thing.” – Sathya Sai Baba (SSS 30.18: July 20, 1997)



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